BUILDING STANDARDS COMMISSION
2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959

January 13, 2011

Mr. Samuel Kevin Wilson, P.E.
Director of Community Services and Water
City of Vernon
4305 Santa Fe Avenue
Vernon, California 90058

Dear Mr. Samuel Kevin Wilson:

This letter is to acknowledge receipt on December 20, 2010 of the City of Vernon submittal pertaining to Ordinance No. 1176 with findings and is acceptable for filing. Per Health and Safety Code Section 17958.8 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

E. M. Rodriguez

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

City of Vernon

COMMUNITY SERVICES & WATER DEPARTMENT
Samuel Kevin Wilson, Director of Community Services & Water
4305 Santa Fe Avenue, Vernon, California 90058
Telephone (323) 583–8811 Fax (323) 826-1435

December 15, 2010

C-14
Certified Mail

California Building Standards Commission
2525 Natamos Park Drive, Suite 130
Sacramento, California 95833

Dear Sir or Madam:

The City of Vernon recently adopted the 2010 California Building Code; the 2010 California Electrical Code, and the 2006 Edition of the ICC Electrical Code Administrative Provisions; the 2010 California Mechanical Code; the 2010 California Plumbing Code; the 2010 California Existing Building Code; the 2009 International Existing Building Code; the 2010 California Residential Code; the 2010 California Green Building Standards Code; and the 2010 California Energy Code with various amendments under Ordinance No. 1176.

Also, enclosed herewith is Resolution No. 2010-175 in which the City of Vernon City Council is making express findings and determinations that modifications to the 2010 California Building Code, 2010 California Electrical Code, and the 2006 Edition of the ICC Electrical Code Administrative Provisions, 2010 California Mechanical Code, 2010 California Plumbing Code, 2010 California Existing Building Code, 2009 International Existing Building Code, 2010 California Residential Code, 2010 California Green Building Standards Code, and 2010 California Energy Code are reasonably necessary because of local climatic, geological or topographical conditions.

Enclosed herewith are certified copies of the City of Vernon's Ordinance No. 1176 and Resolution No. 2010-175.

This letter shall serve as the City of Vernon's filing of its modifications to the above mentioned codes along with Vernon's findings determining why each amendment or modification is necessary.

If you have any questions you may contact me at (323) 826-1450. Thank you.

Sincerely,

Samuel Kevin Wilson, P.E.
Director of Community Services & Water

SKW/ca
Enclosures

Exclusively Industrial

CERTIFICATE

STATE OF CALIFORNIA)

) ss

COUNTY OF LOS ANGELES)

I, Willard Yamaguchi, City Clerk of the City of Vernon, County of Los Angeles, State of California, hereby certify that the attached is a full and complete copy of:

> **Ordinance No. 1176** - An Ordinance of the City Council of the City of Vernon Amending Chapter 24, Building and Construction, of the Code of the City of Vernon; Adopting By Reference (1) The 2010 California Building Code; (2) The 2010 California Electrical Code, and the 2006 Edition of the ICC Electrical Code Administrative Provisions; (3) The 2010 California Mechanical Code; (4) The 2010 California Plumbing Code; (5) The 2010 California Existing Building Code; (6) The 2009 International Existing Building Code; (7) The 2010 California Residential Code; (8) The 2010 California Green Building Standards Code; and (9) The 2010 California Energy Code, Including Amendments, Additions and Deletions, and Repealing All Ordinances and Parts of Ordinances in Conflict Therewith

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official Seal of the City of Vernon, County of Los Angeles, State of California, on this 13 day of December 2010.

SEAL:

Willard G. Yamaguchi
City Clerk

ORDINANCE NO. 1176

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF VERNON AMENDING CHAPTER 24, BUILDING AND CONSTRUCTION, OF THE CODE OF THE CITY OF VERNON; ADOPTING BY REFERENCE (1) THE 2010 CALIFORNIA BUILDING CODE; (2) THE 2010 CALIFORNIA ELECTRICAL CODE, AND THE 2006 EDITION OF THE ICC ELECTRICAL CODE ADMINISTRATIVE PROVISIONS; (3) THE 2010 CALIFORNIA MECHANICAL CODE; (4) THE 2010 CALIFORNIA PLUMBING CODE; (5) THE 2010 CALIFORNIA EXISTING BUILDING CODE; (6) THE 2009 INTERNATIONAL EXISTING BUILDING CODE; (7) THE 2010 CALIFORNIA RESIDENTIAL CODE; (8) THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE; AND (9) THE 2010 CALIFORNIA ENERGY CODE, INCLUDING AMENDMENTS, ADDITIONS AND DELETIONS, AND REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT THEREWITH

WHEREAS, the City of Vernon by Ordinance No. 1136 adopted the following codes with certain modifications and changes; 2007 California Building Code; the 2007 California Electrical Code; the 2006 International Code Council Electrical Code Administrative Provisions; the 2007 California Mechanical Code; the 2007 California Plumbing Code; the 2007 California Existing Building Code; and the 2006 International Existing Building Code; and

WHEREAS, Health and Safety Code Section 18938(b) provides that the most recent editions of the Uniform Building Code, Appendix Chapter 1 of the Uniform Code of Conservation, the National Electrical Code, the Uniform Plumbing Code, the Uniform Mechanical Code, and the California Existing Building Code (hereinafter the "codes"), as referenced in the California Building Standards Code, shall apply to all occupancies in the state and shall become effective 180 days after publication in the California Building Standards Code by the California Building Standards Commission (hereinafter referred to as the "Commission") or at a later date after publication established by said Commission; and

WHEREAS, the 2010 California Building Code Volumes 1 and 2 and Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 2; and

WHEREAS, the 2010 California Residential Code and Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 2.5; and

WHEREAS, the 2010 California Electrical Code including Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 3; and

WHEREAS, the 2006 Edition of the International Code Council Electrical Code

Administrative Provisions for the Electrical Code has been published and issued by the International Code Council; and

WHEREAS, the 2010 California Mechanical Code including Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 4; and

WHEREAS, the 2010 California Plumbing Code including Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 5; and

WHEREAS, the 2010 California Energy Code including Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 6; and

WHEREAS, the 2010 California Existing Building Code has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 10; and

WHEREAS, the 2009 International Existing Building Code has been published by the International Code Council; and

WHEREAS, the 2010 California Green Building Standards Code including Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 11; and

WHEREAS, the 2010 Editions of the California Building, Electrical, Mechanical, Plumbing and Existing Building Codes are substantially the same as the 2007 California Codes as adopted by City of Vernon Ordinance No. 1136; and

WHEREAS, the 2010 Editions of the California Residential and Green Building Standards Codes have been adopted for the first time by the California Building Standards Commission this year and the City intends to adopt these Codes with amendments; and

WHEREAS, the City intends to specifically adopt the 2010 Edition of the California Energy Code with amendments at this time; and

WHEREAS, the Commission has determined that the aforesaid Codes, as published in the California Building Standards Code, shall become effective January 1, 2011; and

WHEREAS, Uniform Code for the Abatement of Dangerous Buildings, as adopted in Ordinance No. 1073, remains unchanged; and

WHEREAS, California Health and Safety Code Sections 17958, 17958.5, 17958.7, and

18941.5 allow certain amendments to the codes to be made by a local government provided findings of necessity can be made; and

WHEREAS, the amendments, deletions and additions to the codes set forth in this ordinance are intended as amendments, deletions and additions to the corresponding requirements of the California Building Standards Code, based upon the findings set outlined in the City Staff Report on Building Code Adoption dated October 26, 2010; and

WHEREAS, most of the proposed amendments to the codes are presently in the Vernon City Code; and

WHEREAS, the City Council of the City of Vernon is authorized, pursuant to Section 50022.2 et seq. of the California Government Code to adopt the above-mentioned codes and other uniform codes as a primary code by reference in whole or in part and that the primary code may adopt by reference a secondary code in whole or in part; and

WHEREAS, the City proposes to adopt Chapters A2 and A5 of the 2009 International Existing Building Codes as minimum retrofit requirements for buildings of tilt up or concrete frame construction types for those property owners who voluntarily propose to retrofit their buildings; and

WHEREAS, City staff is recommending that the 2009 International Existing Building Code, published by the International Code Council be adopted with amendments as the Code to be utilized for the repair of structures damaged during a disaster event; and

WHEREAS, the Building, Administrative Provisions for the Electrical Code, Mechanical and Plumbing Codes contain provisions for a Board of Appeals and permits the City Council to determine the membership of the board of appeals, therefore Section 24.7 of the City Code shall be deleted; and

WHEREAS, pursuant to Government Code Section 50022.3, the City Council on November 1, 2010, gave a first reading to this Ordinance and the titles of said codes to be adopted and standards, and a duly noticed public hearing was held on December 6, 2010, for the purpose of considering the adoption; and

THE CITY COUNCIL OF THE CITY OF VERNON HEREBY ORDAINS AS FOLLOWS:

SECTION 1: The City Council of the City of Vernon hereby finds and determines that the recitals contained herein above are true and correct.

SECTION 2: Building Codes

The City of Vernon hereby adopts by reference the 2010 California Building Code, the 2010 California Residential Code, the 2010 California Electrical Code, the 2006 International Code Council Electrical Code Administrative Provisions, the 2010 California Plumbing Code, the 2010 California Mechanical Code, the 2010 California Existing Building Code, the 2009 International Existing Building Code, the 2010 California Green Building Standards Code, the 2010 California Energy Code, including the secondary codes and standards referred to therein; as amended in Sections 3, 4, 5, 6, 7, 9, 10 and 11 herein.

SECTION 3: Sections 24.10 and 24.11 of Article II of Chapter 24, Building and Construction, of the Code of the City of Vernon are hereby amended as follows:

A. Section 24.10 is hereby amended to read as follows:

"**Sec. 24.10. 2010 California Building Code adopted.**

The 2010 California Building Code, Volumes 1 and 2, and Appendix J, and including standards contained therein, copyrighted by the International Code Council, and the Commission subject, however, to the amendments, additions, and deletions set forth in this article, are hereby adopted by reference as the Building Code of the City of Vernon."

B. Section 24.11 is hereby amended to read as follows:

"**Sec. 24.11. Building Code amendments, additions, and deletions.**

The 2010 California Building Code is amended as follows:

(a) Section 105.8 is hereby added to Chapter 1 of the 2010 Edition of the California Building Code to read as follows:

105.8 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Section 110.7 is hereby added to Chapter 1 of the 2010 Edition of the California Building Code to read as follows:

110.7 Reinspection. A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(c) Section 111.1 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

111.1 Use and occupancy. No building or structure shall be used or occupied, and no change in the existing use or occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefore as provided herein. 'Change in Use' shall include, but not be limited to, any change in occupancy classification or any change of tenancy of a building for which a new business license or certificate of occupancy is required under the Code of the City of Vernon. When determined by the building official that a special inspection is required to determine compliance with the Code of the City of Vernon or with this code for a certificate of occupancy, an inspection fee shall be paid as set forth by resolution of the City Council. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of the Code of the City of Vernon, of this code, or of any other ordinances of this jurisdiction. A certificate of occupancy which presumes to give authority to violate or cancel the provisions of the Code of the City of Vernon, of this code, or of any other ordinance shall not be valid.

Exception: Certificates of occupancy are not required for work exempt from permits under Section 105.2. A Certificate of occupancy shall not be required for a change in Tenancy of a Group R Occupancy.

(d) Section 1505.1 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1505.1 Roof assembly requirements. The roof assembly on any structure regulated by this code shall be as specified in Table 1505.1 except that only fire retardant roof coverings meeting class A or B roofing assemblies are permitted in the City of Vernon. Roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. The roofing assembly includes the roof deck, underlayment, interlayment, insulation and covering, which is assigned a roof classification.

Exception: Skylights and sloped glazing that comply with Chapter 24 or Section 2610.

(e) Section 1613.6.1 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1613.6.1 Assumption of flexible diaphragm. Add the following text at the end of Section 12.3.1.1 of ASCE 7.

Diaphragms constructed of wood structural panels or untopped steel decking shall also be permitted to be idealized as flexible, provided all of the following conditions are met:

1. Toppings of concrete or similar materials are not placed over wood structural panel diaphragms except for nonstructural toppings no greater than 1 ½ inches (38 mm) thick.
2. Each line of vertical elements of the seismic-force-resisting system complies with the allowable story drift of Table 12.12-1.
3. Vertical elements of the seismic-force-resisting system are light-framed walls sheathed with wood structural panels rated for shear resistance or steel sheets.
4. Portions of wood structural panel diaphragms that cantilever beyond the vertical elements of the ~~lateral~~seismic-force-resisting system are designed in accordance with Section 4.2.5.2 of AF&PA SDPWS.

(f) Equation 16-44 of Section 1613.6.7 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

$$\delta_M = \frac{C_d \delta_{max}}{I} \qquad \textbf{(Equation 16-44)}$$

where:

C_d = Deflection amplification factor in Table 12.2-1 of ASCE 7.

δ_{max} = Maximum displacement defined in Section 12.8.4.3 of ASCE 7.

~~I = Importance factor in accordance with Section 11.5.1 of ASCE 7.~~

(g) Section 1613.8 is hereby added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.8 ASCE 7, Table 12.8-2. Modify ASCE 7 Table 12.8-2 by adding the following:

Structure Type	C_t	x
Eccentrically braced steel frames and buckling-restrained braced frames	0.03 (0.0731)[a]	0.75

(h) Section 1613.9 is hereby added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.9 ASCE 7, 12.2.3.1, Exception 3. Modify ASCE 7 Section 12.2.3.1 Exception 3 to read as follows:

3. Detached one and two family dwellings up to two stories in height of light frame construction.

(i) Section 1613.10 is hereby added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.10 ASCE 7, Section 12.8.7. Modify ASCE 7 Section 12.8.7 by amending Equation 12.8-16 as follows:

$$\theta = \frac{P_x \Delta \underline{I}}{V_x h_{sx} C_d} \qquad (12.8\text{-}16)$$

(j) Section 1613.11 is hereby added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.11 ASCE 7, Section 12.11.2.2.3. Modify ASCE 7, Section 12.12.4 to read as follows:

12.11.2.2.3 Wood Diaphragms. In wood diaphragms, the continuous ties shall be in addition to the diaphragm sheathing. Anchorage shall not be accomplished by use of toe nails or nails subject to withdrawal nor shall wood ledgers or framing be used in cross-grain bending or cross-grain tension. The diaphragm sheathing shall not be considered effective as providing ties or struts required by this section.

For structures assigned to Seismic Design Category D, E or F, wood diaphragms supporting

concrete or masonry walls shall comply with the following:

1. The spacing of continuous ties shall not exceed 40 feet. Added chords of diaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous crossties.
2. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75% of the maximum diaphragm shear.

(k) Section 1613.12 is hereby added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.12 Seismic design provisions for hillside buildings.

1613.12.1 Purpose. The purpose of this section is to establish minimum regulations for the design and construction of new buildings and additions to existing buildings when constructing such buildings on or into slopes steeper than one unit vertical in three units horizontal (33.3%). These regulations establish minimum standards for seismic force resistance to reduce the risk of injury or loss of life in the event of earthquakes.

1613.12.2 Scope. The provisions of this section shall apply to the design of the lateral-force-resisting system for hillside buildings at and below the base level diaphragm. The design of the lateral-force-resisting system above the base level diaphragm shall be in accordance with the provisions for seismic and wind design as required elsewhere in this division.

Exception: Non-habitable accessory buildings and decks not supporting or supported from the main building are exempt from these regulations.

1613.12.3 Definitions. For the purposes of this section certain terms are defined as follows:

BASE LEVEL DIAPHRAGM. The floor at, or closest to, the top of the highest level of the foundation.

DIAPHRAGM ANCHORS. Assemblies that connect a diaphragm to the adjacent foundation at the uphill diaphragm edge.

DOWNHILL DIRECTION. The descending direction of the slope approximately perpendicular to the slope contours.

FOUNDATION. Concrete or masonry which supports a building, including footings, stem walls, retaining walls, and grade beams.

FOUNDATION EXTENDING IN THE DOWNHILL DIRECTION. A foundation running downhill and approximately perpendicular to the uphill foundation.

HILLSIDE BUILDING. Any building or portion thereof constructed on or into a slope steeper than one unit vertical in three units horizontal (33.3%). If only a portion of the building is supported on or into the slope, these regulations apply to the entire building.

PRIMARY ANCHORS. Diaphragm anchors designed for and providing a direct connection as described in Sections 1613.12.5 and 1613.12.7.3 between the diaphragm and the uphill foundation.

SECONDARY ANCHORS. Diaphragm anchors designed for and providing a redundant diaphragm to foundation connection, as described in Sections 1613.12.6 and 1613.12.7.4.

UPHILL DIAPHRAGM EDGE. The edge of the diaphragm adjacent and closest to the highest ground level at the perimeter of the diaphragm.

UPHILL FOUNDATION. The foundation parallel and closest to the uphill diaphragm edge.

1613.12.4 Analysis and design.

1613.12.4.1 General. Every hillside building within the scope of this section shall be analyzed, designed, and constructed in accordance with the provisions of this division. When the code-prescribed wind design produces greater effects, the wind design shall govern, but detailing requirements and limitations prescribed in this and referenced sections shall be followed.

1613.12.4.2 Base level diaphragm-downhill direction. The following provisions shall apply to the seismic analysis and design of the connections for the base level diaphragm in the downhill direction.

1613.12.4.2.1 Base for lateral force design defined. For seismic forces acting in the downhill direction, the base of the building shall be the floor at or closest to the top of the highest level of the foundation.

1613.12.4.2.2 Base shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems. The total base shear shall include the forces tributary to the base level diaphragm including forces from the base level diaphragm.

1613.12.5 Base shear resistance-primary anchors.

1613.12.5.1 General. The base shear in the downhill direction shall be resisted through primary anchors from diaphragm struts provided in the base level diaphragm to the foundation.

1613.12.5.2 Location of primary anchors. A primary anchor and diaphragm strut shall be provided in line with each foundation extending in the downhill direction. Primary anchors and diaphragm struts shall also be provided where interior vertical lateral-force-resisting elements occur above and in contact with the base level diaphragm. The spacing of primary anchors and diaphragm struts or collectors shall in no case exceed 30 feet (9144 mm).

1613.12.5.3 Design of primary anchors and diaphragm struts. Primary anchors and diaphragm struts shall be designed in accordance with the requirements of Section 1613.12.8.

1613.12.5.4 Limitations. The following lateral-force-resisting elements shall not be designed to resist seismic forces below the base level diaphragm in the downhill direction:

1. Wood structural panel wall sheathing,
2. Cement plaster and lath,
3. Gypsum wallboard, and
4. Tension only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 may be used to transfer forces from the primary anchors and diaphragm struts to the foundation provided lateral forces do not induce flexural stresses in any member of the frame or in the diaphragm struts. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1613.12.6. Base shear resistance-secondary anchors.

1613.12.6.1 General. In addition to the primary anchors required by Section 1613.12.5, the base shear in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in the base level diaphragm.

Exception: *Secondary anchors are not required where foundations extending in the downhill direction spaced at not more than 30 feet (9144 mm) on center extend up to and are directly connected to the base level diaphragm for at least 70% of the diaphragm depth.*

1613.12.6.2 Secondary anchor capacity and spacing. Secondary anchors at the base level

diaphragm shall be designed for a minimum force equal to the base shear, including forces tributary to the base level diaphragm, but not less than 600 pounds per lineal foot (8.76 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1219 mm) on center.

1613.12.6.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.12.8.

1613.12.7 Diaphragms below the base level-downhill direction. The following provisions shall apply to the lateral analysis and design of the connections for all diaphragms below the base level diaphragm in the downhill direction.

1613.12.7.1 Diaphragm defined. Every floor level below the base level diaphragm shall be designed as a diaphragm.

1613.12.7.2 Design force. Each diaphragm below the base level diaphragm shall be designed for all tributary loads at that level using a minimum seismic force factor not less than the base shear coefficient.

1613.12.7.3 Design force resistance-primary anchors. The design force described in Section 1613.12.7.2 shall be resisted through primary anchors from diaphragm struts provided in each diaphragm to the foundation. Primary anchors shall be provided and designed in accordance with the requirements and limitations of Section 1613.12.5.

1613.12.7.4 Design force resistance-secondary anchors.

1613.12.7.4.1 General. In addition to the primary anchors required in Section 1613.12.7.3, the design force in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in each diaphragm below the base level.

Exception: *Secondary anchors are not required where foundations extending in the downhill direction, spaced at not more than 30 feet (9144 mm) on center, extend up to and are directly connected to each diaphragm below the base level for at least 70% of the diaphragm depth.*

1613.12.7.4.2 Secondary anchor capacity. Secondary anchors at each diaphragm below the base level diaphragm shall be designed for a minimum force equal to the design force but

not less than 300 pounds per lineal foot (4.38 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1219 mm) on center.

1613.12.7.4.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.12.8.

1613.12.8 Primary and secondary anchorage and diaphragm strut design. Primary and secondary anchors and diaphragm struts shall be designed in accordance with the following provisions:

1. Fasteners. All bolted fasteners used to develop connections to wood members shall be provided with square plate washers at all bolt heads and nuts. Washers shall be minimum 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Nuts shall be tightened to finger tight plus one half (1/2) wrench turn prior to covering the framing.
2. Fastening. The diaphragm to foundation anchorage shall not be accomplished by the use of toenailing, nails subject to withdrawal, or wood in cross-grain bending or cross-grain tension.
3. Size of Wood Members. Wood diaphragm struts collectors, and other wood members connected to primary anchors shall not be less than three-inch (76 mm) nominal width. The effects of eccentricity on wood members shall be evaluated as required per Item 9.
4. Design. Primary and secondary anchorage, including diaphragm struts, splices, and collectors shall be designed for 125% of the tributary force.
5. Allowable Stress Increase. The one-third allowable stress increase permitted under Section 1605.3.2 shall not be taken when the working (allowable) stress design method is used.
6. Steel Element of Structural Wall anchorage System. The strength design forces for steel elements of the structural wall anchorage system, with the exception of anchor bolts and reinforcing steel, shall be increased by 1.4 times the forces otherwise required.
7. Primary Anchors. The load path for primary anchors and diaphragm struts shall be fully

developed into the diaphragm and into the foundation. The foundation must be shown to be adequate to resist the concentrated loads from the primary anchors.

8. Secondary Anchors. The load path for secondary anchors and diaphragm struts shall be fully developed in the diaphragm but need not be developed beyond the connection to the foundation.

9. Symmetry. All lateral force foundation anchorage and diaphragm strut connections shall be symmetrical. Eccentric connections may be permitted when demonstrated by calculation or tests that all components of force have been provided for in the structural analysis or tests.

10. Wood Ledgers. Wood ledgers shall not be used to resist cross-grain bending or cross-grain tension.

1613.12.9 Lateral-force-resisting elements normal to the downhill direction.

1613.12.9.1 General. In the direction normal to the downhill direction, lateral-force-resisting elements shall be designed in accordance with the requirements of this section.

1613.12.9.2 Base shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems.

1613.12.9.3 Vertical distribution of seismic forces. For seismic forces acting normal to the downhill direction the distribution of seismic forces over the height of the building using Section 12.8.3 of ASCE 7 shall be determined using the height measured from the top of the lowest level of the building foundation.

1613.12.9.4 Drift limitations. The story drift below the base level diaphragm shall not exceed 0.007 times the story height at strength design force level. The total drift from the base level diaphragm to the top of the foundation shall not exceed 3/4 inch (19 mm). Where the story height or the height from the base level diaphragm to the top of the foundation varies because of a stepped footing or story offset, the height shall be measured from the average height of the top of the foundation. The story drift shall not be reduced by the effect of horizontal diaphragm stiffness.

1613.12.9.5 Distribution of lateral forces.

1613.12.9.5.1 General. The design lateral force shall be distributed to lateral-force-resisting

elements of varying heights in accordance with the stiffness of each individual element.

1613.12.9.5.2 Wood structural panel sheathed walls. The stiffness of a stepped wood structural panel shear wall may be determined by dividing the wall into adjacent rectangular elements, subject to the same top of wall deflection. Deflections of shear walls may be estimated by AF&PA SDPWS Section 4.3.2. Sheathing and fastening requirements for the stiffest section shall be used for the entire wall. Each section of wall shall be anchored for shear and uplift at each step. The minimum horizontal length of a step shall be eight feet (2438 mm) and the maximum vertical height of a step shall be two feet, eight inches (813 mm).

1613.12.9.5.3 Reinforced concrete or masonry shear walls. Reinforced concrete or masonry shear walls shall have forces distributed in proportion to the rigidity of each section of the wall.

1613.12.9.6 Limitations. The following lateral force-resisting-elements shall not be designed to resist lateral forces below the base level diaphragm in the direction normal to the downhill direction:

1. Cement plaster and lath,
2. Gypsum wallboard, and
3. Tension-only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 of this Code may be designed as lateral-force-resisting elements in the direction normal to the downhill direction, provided lateral forces do not induce flexural stresses in any member of the frame. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1613.12.10 Specific design provisions.

1613.12.10.1 Footings and Grade Beams. All footings and grade beams shall comply with the following:

1. Grade beams shall extend at least 12 inches (305 mm) below the lowest adjacent grade and provide a minimum 24-inch (610 mm) distance horizontally from the

bottom outside face of the grade beam to the face of the descending slope.

2. Continuous footings shall be reinforced with at least two No. 4 reinforcing bars at the top and two No. 4 reinforcing bars at the bottom.

3. All main footing and grade beam reinforcement steel shall be bent into the intersecting footing and fully developed around each corner and intersection.

4. All concrete stem walls shall extend from the foundation and reinforced as required for concrete or masonry walls.

1613.12.10.2 Protection against decay and termites. All wood to earth separation shall comply with the following:

1. Where a footing or grade beam extends across a descending slope, the stem wall, grade beam, or footing shall extend up to a minimum 18 inches (457 mm) above the highest adjacent grade.

   Exception: *At paved garage and doorway entrances to the building, the stem wall need only extend to the finished concrete slab, provided the wood framing is protected with a moisture proof barrier.*

2. Wood ledgers supporting a vertical load of more than 100 pounds per lineal foot (1.46 kN/m) and located within 48 inches (1219 mm) of adjacent grade are prohibited. Galvanized steel ledgers and anchor bolts, with or without wood nailers, or treated or decay resistant sill plates supported on a concrete or masonry seat, may be used.

1613.12.10.3 Sill plates. All sill plates and anchorage shall comply with the following:

1. All wood framed walls, including nonbearing walls, when resting on a footing, foundation, or grade beam stem wall, shall be supported on wood sill plates bearing on a level surface.

2. Power-driven fasteners shall not be used to anchor sill plates except at interior nonbearing walls not designed as shear walls.

1613.12.10.4 Column base plate anchorage. The base of isolated wood posts (not framed into a stud wall) supporting a vertical load of 4,000 pounds (17.8 kN) or more and the base plate for a

steel column shall comply with the following:

1. When the post or column is supported on a pedestal extending above the top of a footing or grade beam, the pedestal shall be designed and reinforced as required for concrete or masonry columns. The pedestal shall be reinforced with a minimum of four No. 4 bars extending to the bottom of the footing or grade beam. The top of exterior pedestals shall be sloped for positive drainage.
2. The base plate anchor bolts or the embedded portion of the post base, and the vertical reinforcing bars for the pedestal, shall be confined with two No. 4 or three No. 3 ties within the top five inches (127 mm) of the concrete or masonry pedestal. The base plate anchor bolts shall be embedded a minimum of 20 bolt diameters into the concrete or masonry pedestal. The base plate anchor bolts and post bases shall be galvanized and each anchor bolt shall have at least two galvanized nuts above the base plate.

1613.12.10.5 Steel beam to column supports. All steel beam to column supports shall be positively braced in each direction. Steel beams shall have stiffener plates installed on each side of the beam web at the column. The stiffener plates shall be welded to each beam flange and the beam web. Each brace connection or structural member shall consist of at least two 5/8 inch (15.9 mm) diameter machine bolts.

(l) Section 1613.13 is hereby added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.13 Suspended ceilings. Minimum design and installation standards for suspended ceilings shall be determined in accordance with the requirements of Section 2506.2.1 of this Code and this subsection.

1613.13.1 Scope. This part contains special requirements for suspended ceilings and lighting systems. Provisions of Section 13.5.6 of ASCE 7 shall apply except as modified herein.

1613.13.2 General. The suspended ceilings and lighting systems shall be limited to 6 feet (1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

1613.13.3 Design and installation requirements.

1613.13.3.1 Bracing at discontinuity. Positive bracing to the structure shall be provided at changes in the ceiling plane elevation or at discontinuities in the ceiling grid system.

1613.13.3.2 Support for appendages. Cable trays, electrical conduits and piping shall be independently supported and independently braced from the structure.

1613.13.3.3 Sprinkler heads. All sprinkler heads (drops) except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile, in accordance with Section 13.5.6.2.2 (e) of ASCE 7.

Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with Section 713 of this Code.

1613.13.3.4 Perimeter members. A minimum wall angle size of at least a two-inch (51 mm) horizontal leg shall be used at perimeter walls and interior full height partitions. The first ceiling tile shall maintain 3/4 inch (19 mm) clear from the finish wall surface. An equivalent alternative detail that will provide sufficient movement due to anticipated lateral building displacement may be used in lieu of the long leg angle subject to the approval of the Superintendent of Building.

1613.13.4 Special requirements for means of egress. Suspended ceiling assemblies located along means of egress serving an occupant load of 30 or more shall comply with the following provisions.

1613.13.4.1 General. Ceiling suspension systems shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress serving an occupant load of 30 or more and at lobbies accessory to Group A Occupancies. Spacing of vertical hangers shall not exceed 2 feet (610 mm) on center along the entire length of the suspended ceiling assembly located along the means of egress or at the lobby.

1613.13.4.2 Assembly device. All lay-in panels shall be secured to the suspension ceiling assembly with two hold-down clips minimum for each tile within a 4-foot (1219 mm) radius of the exit lights and exit signs.

1613.13.4.3 Emergency systems. Independent supports and braces shall be provided for light fixtures required for exit illumination. Power supply for exit illumination shall comply with the requirements of Section 1006.3 of this Code.

1613.13.4.4 Supports for appendage. Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs, and similar elements.

(m) Section 1704.4 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1704.4 Concrete construction. The *special inspections* and verifications for concrete construction shall be as required by this section and Table 1704.4.

Exceptions: *Special inspections* shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above *grade plane* that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'_c, no greater than 2,500 pounds per square inch (psi) (17.2 Mpa).
2. Continuous concrete footings supporting walls of buildings three stories or less above *grade plane* that are fully supported on earth or rock where:
   2.1. The footings support walls of light-frame construction;
   2.2. The footings are designed in accordance with Table 1809.7; or
   2.3. The structural design of the footing is based on a specified compressive strength, f'_c, no greater than 2,500 pounds per square inch (psi) (17.2 Mpa), regardless of the compressive strength specified in the *construction documents* or used in the footing construction.
3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 Mpa).

~~4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.~~

54. Concrete patios, driveways and sidewalks, on grade.

(n) Section 1704.8 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1704.8 Driven deep foundations and connection grade beams. *Special inspections* shall be performed during installation and testing of driven deep foundation elements as required by Table 1704.8. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The *approved* geotechnical report, and the *construction documents* prepared by the *registered design professionals*, shall be used to determine compliance.

(o) Section 1704.9 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1704.9 Cast-in-place deep foundations and connection grade beams. *Special inspections* shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1704.9. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The *approved* geotechnical report, and the *construction documents* prepared by the *registered design professionals*, shall be used to determine compliance.

(p) Section 1705.3 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1705.3 Seismic resistance. The statement of special inspections shall include seismic requirements for cases covered in Sections 1705.3.1 through 1705.3.5.

Exception: Seismic requirements are permitted to be excluded from the statement of special inspections for structures designed and constructed in accordance with the following:

1. The structure consists of light-frame construction; the design spectral response acceleration at short periods, S_{DS}, as determined in Section 1613.5.4, does not exceed 0.5g; and the height of the structure does not exceed 35 feet (10 668 mm) above *grade plane*; or
2. The structure is constructed using a reinforced masonry structural system or reinforced concrete structural system; the design spectral response acceleration at short periods,

S_{DS}, as determined in Section 1613.5.4, does not exceed 0.5g, and the height of the structure does not exceed 25 feet (7620 mm) above *grade plane*; or

3. Detached one- or two-family dwellings not exceeding two *stories above grade plane*, provided the structure is not assigned to Seismic Design Category D, E or F and does not have any of the following plan or vertical irregularities in accordance with Section 12.3.2 of ASCE 7:

   3.1 Torsional irregularity.

   3.2 Nonparallel systems.

   3.3 Stiffness irregularity—extreme soft story and soft story.

   3.4 Discontinuity in capacity—weak story.

(q) Section 1710.1 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1710.1 General. Where required by the provisions of Section 1710.2 or 1710.3, the owner shall employ a ~~*registered design professional*~~ structural observer to perform structural observations as defined in Section 1702. The structural observer shall be one of the following individuals:

1. The registered design professional responsible for the structural design, or
2. A registered design professional designated by the registered design professional responsible for the structural design.

Prior to the commencement of observations, the structural observer shall submit to the *building official* a written statement identifying the frequency and extent of structural observations.

~~At the conclusion of the work included in the permit, the structural observer shall submit to the *building official* a written statement that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved.~~

The owner or owner's representative shall coordinate and call a preconstruction meeting between the structural observer, contractors, affected subcontractors and special inspectors. The structural observer shall preside over the meeting. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load resisting systems of the structure and to review scheduling of the required observations. A record of the meeting shall be

included in the report submitted to the building official.

Observed deficiencies shall be reported in writing to the owner or owner's representative, special inspector, contractor and the building official. Upon the form prescribed by the building official, the structural observer shall submit to the building official a written statement at each significant construction stage stating that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved. A final report by the structural observer which states that all observed deficiencies have been resolved is required before acceptance of the work by the building official.

(r) Section 1710.2 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1710.2 Structural observations for seismic resistance. Structural observations shall be provided for those structures assigned to *Seismic Design Category* D, E or F, as determined in Section 1613, where one or more of the following conditions exist:

1. The structure is classified as *Occupancy Category* III or IV in accordance with Table 1604.5.
2. The height of the structure is greater than 75 feet (22 860 mm) above the base.
3. The structure ~~is assigned to *Seismic Design Category* E,~~ is classified as *Occupancy Category* I or II in accordance with Table 1604.5, and ~~is greater than *two stories one stories above grade plane*~~ a lateral design is required for the structure or portion thereof.

   Exception: One-story wood framed Group R-3 and Group U Occupancies less than 2,000 square feet in area, provided the adjacent grade is not steeper than 1 unit vertical in 10 units horizontal (10% sloped), assigned to Seismic Design Category D.
4. When so designated by the *registered design professional* responsible for the structural design.
5. When such observation is specifically required by the *building official*.

(s) Section 1807.1.4 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1807.1.4 Permanent wood foundation systems. Permanent wood foundation systems shall be

designed and installed in accordance with AF&PA PWF. Lumber and plywood shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B and Section 5.2) and shall be identified in accordance with Section 2303.1.8.1. Permanent wood foundation systems shall not be used for structures assigned to Seismic Design Category D, E or F.

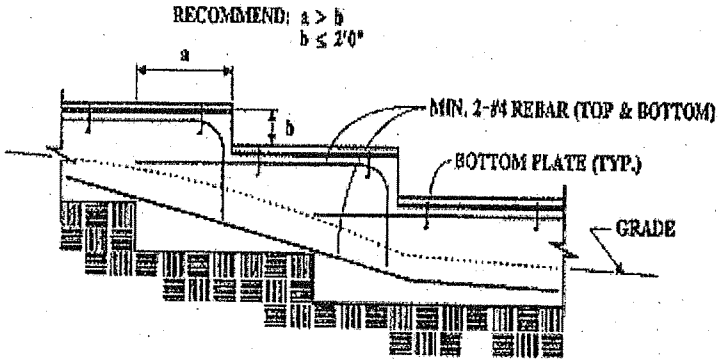
(t) Section 1807.1.6 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F.

(u) Section 1809.3 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1809.3 Stepped footings. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures assigned to Seismic Design Category D, E or F, the stepping requirement shall also apply to the top surface of grade beams supporting walls. Footings shall be reinforced with four 1/2-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be place at the top and bottom of the footings as shown in Figure 1809.3.



STEPPED FOUNDATIONS

FIGURE 1809.3
STEPPED FOOTING

(v) Section 1809.7 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1809.7 Prescriptive footings for light-frame construction. Where a specific design is not provided, concrete or masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7. Prescriptive footings in Table 1809.7 shall not exceed one story above grade plane for structures assigned to Seismic Design Category D, E or F.

(w) Table 1809.7 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

TABLE 1809.7
PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF LIGHT-FRAME CONSTRUCTION [a, b, c, d, e]

NUMBER OF FLOORS SUPPORTED BY THE FOOTING [f]	WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)
1	12	6
2	15	6
3	18	8 [g]

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

a. Depth of footings shall be in accordance with Section 1809.4.

b. The ground under the floor shall be permitted to be excavated to the elevation of the top of the footing.

~~c. Interior stud-bearing walls shall be permitted to be supported by isolated footings. The footing width and length shall be twice the width shown in this table, and footings shall be spaced not more than 6 feet on center.~~ Not Adopted.

d. See Section 1908 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F.

e. For thickness of foundation walls, see Section 1807.1.6.

f. Footings shall be permitted to support a roof addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.

~~g. Plain concrete footings for Group R-3 occupancies shall be permitted to be 6 inches thick.~~

(x) Section 1809.12 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1809.12 Timber footings. Timber footings shall be permitted for buildings of Type V construction and as otherwise *approved* by the *building official*. Such footings shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B). Treated timbers are not required where placed entirely below permanent water level, or where used as capping for wood piles that project above the water level over submerged or marsh lands. The compressive stresses perpendicular to grain in untreated timber footing supported upon treated piles shall not exceed 70 percent of the allowable stresses for the species and grade of timber as specified in the AF&PA NDS. Timber footings shall not be used in structures assigned to Seismic Design Category D, E or F.

(y) Section 1810.3.2.4 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1810.3.2.4 Timber. Timber deep foundation elements shall be designed as piles or poles in accordance with AF&PA NDS. Round timber elements shall conform to ASTM D 25. Sawn timber elements shall conform to DOC PS-20. Timber shall not be used in structures assigned to Seismic Design Category D, E or F.

(z) Section 1908.1 is hereby amended to read as follows:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through

~~1908.1.10~~1908.1.14.

(aa) Section 1908.1.11 is hereby added to Chapter 19 of the 2010 Edition of the California Building Code to read as follows:

1908.1.11 ACI 318, Section 21.6.4.1. Modify ACI 318, Section 21.6.4.1, to read as follows:

Where the calculated point of contraflexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318 Sections 21.6.4.1, Items (a) through (c), over the full height of the member.

(bb) Section 1908.1.12 is hereby added to Chapter 19 of the 2010 Edition of the California Building Code to read as follows:

1908.1.12 ACI 318, Section 21.6.4. Modify ACI 318, Section 21.6.4, by adding Section 21.6.4.8 to read as follows:

21.6.4.8 – At any section where the design strength, φP_n, of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.5.4.1 and 21.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For the determination of the design strength, φP_n, of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

(cc) Section 1908.1.13 is hereby added to Chapter 19 of the 2010 Edition of the California Building Code to read as follows:

1908.1.13 ACI 318, Section 21.9.4. Modify ACI 318, Section 21.9.4, by adding Section 21.9.4.6 to read as follows:

21.9.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.13.

(dd) Section 1908.1.14 is hereby added to Chapter 19 of the 2010 Edition of the California Building Code to read as follows:

1908.1.14 ACI 318, Section 21.11.6. Modify ACI 318, Section 21.11.6, by adding the following:

Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or 6 d_b thick, where d_b is the diameter of the largest reinforcement in the topping slab.

(ee) Section 1908.1.2 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1908.1.2 ACI 318, Section 21.1.1. Modify ACI 318, Sections 21.1.1.3 and 21.1.1.7 as follows:

21.1.1.3 – Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; *Chapter 21 does not apply.* Structures assigned to *Seismic Design Category* B, C, D, E or F also shall satisfy 21.1.1.4 through 21.1.1.8, as applicable. *Except for structural elements of plain concrete complying with Section 1908.1.8 of the California Building Code, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.*

21.1.1.7 – Structural systems designated as part of the seismic-force-resisting system shall be restricted to those *permitted by ASCE 7.* Except for *Seismic Design Category* A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each structural system designated as part of the seismic-force-resisting system, regardless of the *Seismic Design Category*:

(a) Ordinary moment frames shall satisfy 21.2.

(b) Ordinary reinforced concrete structural walls *and ordinary precast structural walls* need not satisfy any provisions in Chapter 21.

(c) Intermediate moment frames shall satisfy 21.3.

(d) Intermediate precast *structural* walls shall satisfy 21.4.

(e) Special moment frames shall satisfy 21.5 through 21.8.

(f) Special structural walls shall satisfy 21.9.

(g) Special structural walls constructed using precast concrete shall satisfy 21.10.

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7. Concrete tilt-up wall panels classified as intermediate precast structural wall system shall satisfy 21.9 in addition to 21.4.2 and 21.4.3 for structures assigned to Seismic Design Category

D, E or F.

(ff) Section 1908.1.3 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1908.1.3 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by renumbering Section 21.4.3 to become 21.4.4 and adding new Sections 21.4.3, 21.4.5, 21.4.6 and 21.4.7 to read as follows:

21.4.3 – Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4 – Elements of the connection that are not designed to yield shall develop at least 1.5 S_y.

21.4.5 – [BSC] Wall piers in Seismic Design Category D, E or F shall comply with Section 1908.1.4 of this code.

21.4.6 – Wall piers not designed as part of a moment frame in ~~SDC C~~ buildings assigned to Seismic Design Category C shall have transverse reinforcement designed to resist the shear forces determined from 21.3.3. Spacing of transverse reinforcement shall not exceed 8 inches (203 mm). Transverse reinforcement shall be extended beyond the pier clear height for at least 12 inches (305 mm).

Exceptions:

1. *Wall piers that satisfy 21.13.*
2. *Wall piers along a wall line within a story where other shear wall segments provide lateral support to the wall piers and such segments have a total stiffness of at least six times the sum of the stiffnesses of all the wall piers.*

21.4.7 – Wall segments with a horizontal length-to-thickness ratio less than 2.5 shall be designed as columns.

(gg) Section 1908.1.8 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1908.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 – Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1 – Structures assigned to Seismic Design Category C, D, E or F shall not have elements

of structural plain concrete, except as follows:

(a) ~~Structural plain concrete basement, foundation or other walls below the base are permitted in detached one- and two-family dwellings three stories or less in height constructed with stud-bearing walls. In dwellings assigned to Seismic Design Category D or E, the height of the wall shall not exceed 8 feet (2438 mm), the thickness shall not be less than 7½ inches (190 mm), and the wall shall retain no more than 4 feet (1219 mm) of unbalanced fill. Walls shall have reinforcement in accordance with 22.6.6.5.~~ Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement per cubic yard.

(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

~~**Exception:** In detached one- and two-family dwellings three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.~~

(c) Plain concrete footings supporting walls are permitted provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. ~~For footings that exceed 8 inches (203 mm) in thickness, a~~A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

~~Exceptions:~~

~~1.~~ In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings ~~without longitudinal reinforcement supporting walls are permitted~~ with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

~~2. For foundation systems consisting of a plain concrete footing and a plain~~

~~*concrete stemwall, a minimum of one bar shall be provided at the top of the stemwall and at the bottom of the footing.*~~

~~*3. Where a slab on ground is cast monolithically with the footing, one No. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.*~~

(hh) Section 1909.4 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1909.4 Design. Structural plain concrete walls, footings and pedestals shall be designed for adequate strength in accordance with ACI 318, Section 22.4 through 22.8.

Exception: For Group R-3 occupancies and buildings or other occupancies less than two *stories above grade plane* of light-frame construction, the required edge thickness of ACI 318 is permitted to be reduced to 6 inches (152 mm), provided that the footing does not extend more than 4 inches (102 mm) on either side of the supported wall. This exception shall not apply to structural elements designed to resist seismic lateral forces for structures assigned to Seismic Design Category D, E or F.

(ii) Section 2204.1.1 is hereby added to Chapter 22 of the 2010 Edition of the California Building Code to read as follows:

2204.1.1 Consumables for welding.

2204.1.1.1 Seismic Force Resisting System (SFRS) welds. All welds used in members and connections in the SFRS shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3. AWS D1.8 Clauses 6.3.5, 6.3.6, 6.3.7 and 6.3.8 shall apply only to demand critical welds.

2204.1.1.2 Demand critical welds. Where welds are designated as demand critical, they shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3.

(jj) Section 2205.4 is hereby added to Chapter 22 of the 2010 Edition of the California Building Code to read as follows:

2205.4 AISC 341, Part I, Section 13.2 Members. Add Section 13.2f to read as follows:

13.2f. Member Types

The use of rectangular HSS are not permitted for bracing members, unless filled solid with cement grout having a minimum compressive strength of 3,000 psi (20.7 MPa) at 28 days. The effects of composite action in the filled composite brace shall be considered in the sectional properties of the system where it results in the more severe loading condition or detailing.

(kk) Section 2304.9.1 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2304.9.1 Fastener requirements. Connections for wood members shall be designed in accordance with the appropriate methodology in Section 2301.2. The number and size of fasteners connecting wood members shall not be less than that set forth in Table 2304.9.1. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the building official.

(ll) Footnote q. is hereby added to Table 2304.9.1 of the 2010 Edition of the California Building Code to read as follows:

q. Staples shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

(mm) Section 2304.11.7 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2304.11.7 Wood used in retaining walls and cribs. Wood installed in retaining or crib walls shall be preservative treated in accordance with AWPA U1 (Commodity Specifications A or F) for soil and fresh water use. Wood shall not be used in retaining or crib walls for structures assigned to Seismic Design Category D, E or F.

(nn) Section 2305.4 is hereby added to Chapter 23 of the 2010 Edition of the California Building Code to read as follows:

2305.4 Quality of nails. In Seismic Design Category D, E or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven

nails, including diameter, minimum length and minimum head diameter. Clipped head or box nails are not permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

(oo) Section 2305.5 is hereby added to Chapter 23 of the 2010 Edition of the California Building Code to read as follows:

2305.5 Hold-down connectors. In Seismic Design Category D, E or F, hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-down connectors shall be tightened to finger tight plus one half (1/2) wrench turn just prior to covering the wall framing.

(pp) Section 2306.2.1 of Chapter 23 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2306.2.1 Wood structural panel diaphragms. Wood structural panel diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel diaphragms are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.2.1(1) or 2306.2.1(2). For structures assigned to Seismic Design Category D, E or F, the allowable shear capacities shall be set forth in Table 2306.2.1(3) or 2306.2.1(4). The allowable shear capacities in Table 2306.2.1(1) or 2306.2.1(2) are permitted to be increased 40 percent for wind design.

Wood structural panel diaphragms fastened with staples shall not used to resist seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used for wood structural panel diaphragms when the allowable shear values are substantiated by cyclic testing and approved by the building official.

Wood structural panel diaphragms used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

Exception: Wood structural panel diaphragm is permitted to be fastened over solid lumber

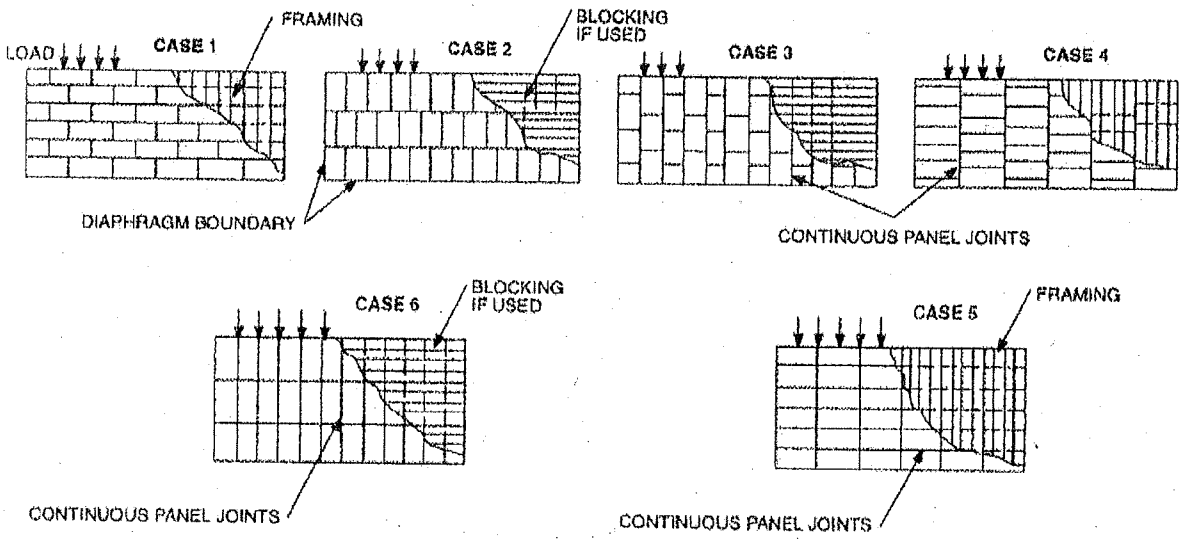
planking or laminated decking, provided the panel joints and lumber planking or laminated decking joints do not coincide.

(qq) Tables 2306.2.1(3) and 2306.2.1(4) are hereby added to Chapter 23 of the 2010 Edition of the California Building Code to read as follows:

TABLE 2306.2.1(3)
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[f] FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F

PANEL GRADE	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES[e] (inches)	BLOCKED DIAPHRAGMS				UNBLOCKED DIAPHRAGMS	
					Fastener spacing (inches) at diaphragm boundaries (all cases) at continuous panel edges parallel to load (Cases 3,4), and at all panel edges (Cases 5, 6)[b]				Fastener spaced 6" max. at supported edges[b]	
					6	4	2 ½ [c]	2[c]	Case 1 (No unblocked edges or continuous joints parallel to load)	All other configurations (Cases 2, 3, 4, 5 and 6)
					Fastener spacing (inches) at other panel edges (Cases 1,2,3 and 4)[b]					
					6	6	4	3		
Structural I Grades	8d (2 ½" x 0.131")	1 3/8	3/8	2	270	360	530	600	240	180
				3	300	400	600	675	265	200
	10d[d] (3" x 0.148")	1 ½	15/32	2	320	425	640	730	285	215
				3	360	480	720	820	320	240
Sheathing, single floor and other grades covered in DOC PS1 and PS2	6d[e] (2" x 0.113")	1 ¼	3/8	2	185	250	375	420	165	125
				3	210	280	420	475	185	140
	8d (2 ½" x 0.131")	1 3/8		2	240	320	480	545	215	160
				3	270	360	540	610	240	180
	8d (2 ½" x 0.131")	1 3/8	7/16	2	255	340	505	575	230	170
				3	285	380	570	645	255	190
	8d (2 ½" x 0.131")	1 3/8	15/32	2	270	360	530	600	240	180
				3	300	400	600	675	265	200
	10d[d] (3" x 0.148")	1 ½		2	290	385	575	655	255	190
				3	324	430	650	735	290	215
	10d[d] (3" x 0.148")	1 ½	19/32	2	320	425	640	730	285	215
				3	360	480	720	820	320	240

TABLE 2306.2.1(3)–continued
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE[a] FOR SEISMIC LOADING[f]
FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATERGORY D, E OR F



For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Space fasteners maximum 12 inches o.c. along intermediate framing members (6 inches o.c. where supports are spaced 48 inches o.c.).

c. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where panel edge nailing is specified at 2 ½ inches o.c. or less.

d. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where both of the following conditions are met: (1) 10d nails having penetration into framing of more than 1 ½ inches and (2) panel edge nailing is specified at 3 inches o.c. or less.

e. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.

f. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

TABLE 2306.2.1(4)
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL BLOCKED DIAPHRAGMS UTILIZING MULTIPLE ROWS OF FASTENERS (HIGH LOAD DIAPHRAGMS) WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[b,f,g] FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATERGORY D, E OR F

PANEL GRADE[c]	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES[e] (inches)	LINES OF FASTENERS	BLOCKED DIAPHRAGMS			
						Cases 1 and 2[d]			
						Fastener Spacing Per Line at Boundaries (inches)			
						4		2 1/2	
						Fastener Spacing Per Line at Other Panel Edges (inches)			
						6	4	4	3
Structural I grades	10d common nails	1 1/2	15/32	3	2	605	815	875	1,150
				4	2	700	915	1,005	1,290
				4	3	875	1,220	1,285	1,395
			19/32	3	2	670	880	965	1,255
				4	2	780	990	1,110	1,440
				4	3	965	1,320	1,405	1,790
			23/32	3	2	730	955	1,050	1,365
				4	2	855	1,070	1,210	1,565
				4	3	1,050	1,430	1,525	1,800
Sheathing, single floor and other grades covered in DOC PS1 and PS2	10d common nails	1 1/2	15/32	3	2	525	725	765	1,010
				4	2	605	815	875	1,105
				4	3	765	1,085	1,130	1,195
			19/32	3	2	650	860	935	1,225
				4	2	755	965	1,080	1,370
				4	3	935	1,290	1,365	1,485
			23/32	3	2	710	935	1,020	1,335
				4	2	825	1,050	1,175	1,445
				4	3	1,020	1,400	1,480	1,565

For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Fastening along intermediate framing members: Space fasteners a maximum of 12 inches on center, except 6 inches on center for spans greater than 32 inches.

c. Panels conforming to PS1 or PS 2.

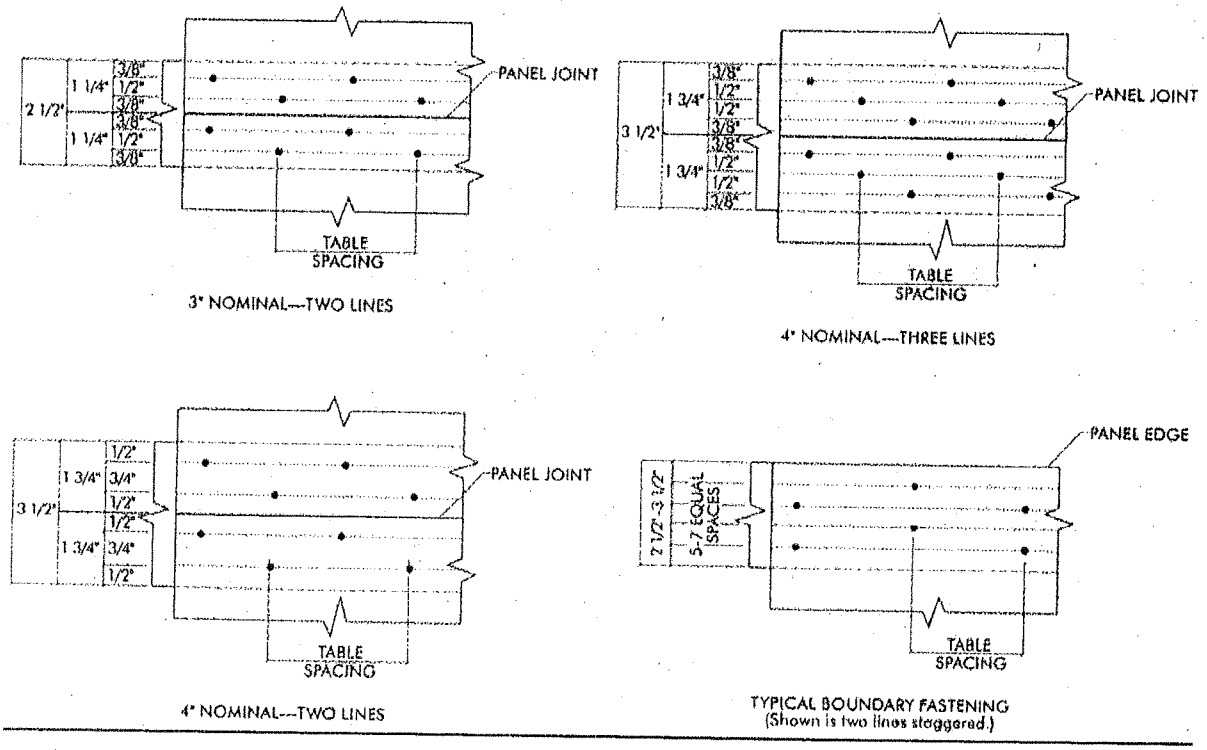
d. This table gives shear values for Cases 1 and 2 as shown in Table 2306.2.1(3). The values shown are applicable to Cases 3, 4, 5 and 6 as shown in Table 2306.2.1(3), providing fasteners at all continuous panels edges are spaced in accordance with the boundary fastener spacing.

e. The minimum nominal depth of framing members shall be 3 inches nominal. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.

f. High load diaphragms shall be subject to special inspection in accordance with Section 1704.6.1.

g. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

TABLE 2306.2.1(4)–continued
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL BLOCKED DIAPHRAGMS UTILIZING MULTIPLE ROWS OF FASTENERS (HIGH LOAD DIAPHRAGMS) WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[b,f,g] FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATERGORY D, E OR F



NOTE: SPACE PANEL END AND EDGE JOINT 1/8-INCH. REDUCE SPACING BETWEEN LINES OF NAILS AS NECESSARY TO MAINTAIN MINIMUM 3/8-INCH FASTENER EDGE MARGINS. MINIMUM SPACING BETWEEN LINES IS 3/8-INCH

(rr) Section 2306.3 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2306.3 Wood structural panel shear walls. Wood structural panel shear walls shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel shear walls are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.3(1). For structures assigned to Seismic Design Category D, E or F, the allowable shear capacities shall be set forth in Table 2306.3(2). The allowable shear capacities in Table 2306.3(1) are permitted to be increased 40 percent for wind design.

Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic

Design Category D, E or F shall not be less than 4 feet by 8 feet (1219 mm by 2438 mm), except at boundaries and at changes in framing. Wood structural panel thickness for shear walls shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.

The maximum allowable shear value for three-ply plywood resisting seismic forces in structures assigned to Seismic Design Category D, E or F is 200 pounds per foot (2.92 kn/m). Nails shall be placed not less than 1/2 inch (12.7 mm) in from the panel edges and not less than 3/8 inch (9.5mm) from the edge of the connecting members for shear greater than 350 pounds per foot (5.11kN/m). Nails shall be placed not less than 3/8 inch (9.5 mm) from panel edges and not less than 1/4 inch (6.4 mm) from the edge of the connecting members for shears of 350 pounds per foot (5.11kN/m) or less.

Wood structural panel shear walls fastened with staples shall not used to resist seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used for wood structural panel shear walls when the allowable shear values are substantiated by cyclic testing and approved by the building official.

Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

(ss) Table 2306.3 of the 2010 Edition of the California Building Code is hereby renumbered to Table 2306.3(1).

TABLE 2306.3(1)
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR WIND OR SEISMIC LOADING[b, h, i, j, l, m, n]

(tt) Table 2306.3(2) is hereby added to Chapter 23 of the 2010 Edition of the California Building Code to read as follows:

TABLE 2306.3(2)
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[b, h, j, k, l] FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F

PANEL GRADE	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	ALLOWABLE SHEAR VALUE FOR SEISMIC FORCES PANELS APPLIED DIRECTLY TO FRAMING				
			COMMON NAIL SIZE	Fastener spacing at panel edges (Inches)			
				6	4	3	2[e]
Structural I sheathing	3/8	1 3/8	8d (2½"x0.131" common)	200	200	200	200
	7/16	1 3/8	8d (2½"x0.131" common)	255	395	505	670
	15/32	1 3/8	8d (2½"x0.131" common)	280	430	550	730
		1 ½	10d (3"x0.148" common)	340	510	665[f]	870
Sheathing, plywood siding[g] except Group 5 Species	3/8[c]	1 3/8	8d (2½"x0.113")	160	200	200	200

For SI: 1 inch = 25.4 mm, 1 foot = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Panel edges backed with 2-inch nominal or thicker framing. Install panels either horizontally or vertically. Space fasteners maximum 6 inches on center along intermediate framing members for 3/8-inch and 7/16-inch panels installed on studs spaced 24 inches on center. For other conditions and panel thickness, space fasteners maximum 12 inches on center on intermediate supports.

c. 3/8-inch panel thickness or siding with a span rating of 16 inches on center is the minimum recommended where applied direct to framing as exterior siding. For grooved panel siding, the nominal panel thickness is the thickness of the panel measured at the point of nailing.

d. Allowable shear values are permitted to be increased to values shown for 15/32-inch sheathing with same nailing provided (a) studs are spaced a maximum of 16 inches on center, or (b) panels are applied with long dimension across studs.

e. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where nails are spaced 2 inches on center or less.

f. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where both of the following conditions are met: (1) 10d (3"x0.148") nails having penetration into framing of more than 1-1/2 inches and (2) nails are spaced 3 inches on center or less.

g. Values apply to all-veneer plywood. Thickness at point of fastening on panel edges governs shear values.

h. Where panels applied on both faces of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset to fall on different framing members. Or framing shall be 3-inch nominal or thicker at adjoining panel edges and nails at all panel edges shall be staggered.

i. Where shear design values exceed 350 pounds per linear foot, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members. Wood structural panel joint and sill plate nailing shall be staggered at all panel edges. See Section 4.3.6.1 and 4.3.6.4.3 of AF&PA SDPWS for sill plate size and anchorage requirements.

j. Galvanized nails shall be hot dipped or tumbled.

k. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

l. The maximum allowable shear value for three-ply plywood resisting seismic forces is 200 pounds per foot (2.92 kn/m).

(uu) Section 2306.7 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2306.7 Shear walls sheathed with other materials. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall be designed and constructed in accordance with AF&PA SDPWS. Shear walls sheathed with these materials are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.7. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall not be used to resist seismic forces in structures assigned to *Seismic Design Category* E or F.

Shear walls sheathed with lath, plaster or gypsum board shall not be used below the top level in a multi-level building for structures assigned to Seismic Design Category D.

(vv) Section 2308.3.4 of Chapter 23 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

Exception: For structures with a maximum plan dimension not over 50 feet (15 240 mm), continuous foundations are required at exterior walls only for structures not assigned to Seismic Design Category D, E or F.

(ww) Section 2308.12.2 of Chapter 23 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2308.12.2 Concrete or masonry. Concrete or masonry walls and stone or masonry veneer shall not extend above the basement.

Exception: Stone and masonry veneer is permitted to be used in the first *story above grade plane* in *Seismic Design Category* D, provided the following criteria are met:

1. Type of brace in accordance with Section 2308.9.3 shall be Method 3 and the allowable shear capacity in accordance with Table 2606.3(2) shall be a minimum of 350 plf (5108 N/m).
2. The bracing of the first *story* shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 45 percent of the braced wall line.
3. Hold-down connectors shall be provided at the ends of braced walls for the first floor to foundation with an allowable design of 2,100 pounds (9341 N).

4. Cripple walls shall not be permitted.

5. Anchored masonry and stone wall veneer shall not exceed 5 inches (127 mm) in thickness, shall conform to the requirements of Chapter 14 and shall not extend more than 5 feet (1524 mm) above the first story finished floor.

(xx) Section 2308.12.4 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2308.12.4 Braced wall line sheathing. Braced wall lines shall be braced by one of the types of sheathing prescribed by Table 2308.12.4 as shown in Figure 2308.9.3. The sum of lengths of braced wall panels at each braced wall line shall conform to Table 2308.12.4. Braced wall panels shall be distributed along the length of the braced wall line and start at not more than 8 feet (2438 mm) from each end of the braced wall line. Panel sheathing joints shall occur over studs or blocking. Sheathing shall be fastened to studs, top and bottom plates and at panel edges occurring over blocking. Wall framing to which sheathing used for bracing is applied shall be nominal 2 inch wide [actual $1^1/_2$ inch (38 mm)] or larger members and spaced a maximum of 16 inches on center.

Exception: Braced wall panels required by Section 2308.12.4 may be eliminated when all of the following requirements are met:

1. One story detached Group U occupancies not more than 25 feet in depth or length.
2. The roof and three enclosing walls are solid sheathed with 15/32 inch nominal thickness wood structural panels with 8d common nails placed 3/8 inches from panel edges and spaced not more than 6 inches on center along all panel edges and 12 inches on center along intermediate framing members. Wall openings for doors or windows are permitted provided a minimum 4 foot wide wood structural braced panel with minimum height to length ratio of 2 to 1 is provided at each end of the wall line and that the wall line be sheathed for 50% of its length.

Wood structural panel sheathing shall be a minimum of 15/32 inch thick nailed with 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

~~Cripple walls having a stud height exceeding 14 inches (356 mm) shall be considered a *story* for the purpose of this section and shall be braced as required for braced wall lines in accordance with~~

~~Table 2309.12.4. Where interior braced wall lines occur without a continuous foundation below, the length of parallel exterior cripple wall bracing shall be one and one-half times the lengths required by Table 2308.12.4. Where the cripple wall sheathing type used is Type S-W and this additional length of bracing cannot be provided, the capacity of Type S-W sheathing shall be increased by reducing the spacing of fasteners along the perimeter of each piece of sheathing to 4 inches (102 mm) o.c.~~

Braced wall panel construction types shall not be mixed within a braced wall line.

(yy) Table 2308.12.4 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

TABLE 2308.12.4
WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E
(Minimum Length of Wall Bracing per each 25 Linear Feet of Braced Wall Line [a])

CONDITION	SHEATHING TYPE[b]	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One Story	G-P[c]	10 feet 8 inches	14 feet 8 inches	18 feet 8 inches	25 feet 0 inches
	S-W[d]	5 feet 4 inches	8 feet 0 inches	9 feet 4 inches	12 feet 0 inches

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Minimum length of panel bracing of one face of the wall for S-W sheathing shall be at least 4'-0" long or both faces of the wall for G-P sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required.

b. G-P = gypsum board, ~~fiberboard, particleboard, lath and~~ portland cement plaster or gypsum sheathing boards; S-W = wood structural panels ~~and diagonal wood sheathing~~.

c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:

For 1/2-inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;

For 5/8-inch gypsum board, No 11 gage (0.120 inch diameter) cooler nails at 7 inches on center;

For gypsum sheathing board, 1-3/4 inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;

For gypsum lath, No. 13 gage (0.092 inch) by 1-1/8 inches long, 19/64-inch head, plasterboard at 5 inches on center;

For Portland cement plaster, No. 11 gage (0.120 inch) by $1^1/_2$ inches long, $^7/_{16}$- inch head at 6 inches on center;

~~For fiberboard and particleboard, No. 11 gage (0.120 inch) by $1^{1}/_{2}$ inches long, $^{7}/_{16}$ inch head, galvanized nails at 3 inches on center.~~

d. S-W sheathing shall be a minimum of 15/32" thick nailed with 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

(zz) Section 2308.12.5 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

2308.12.5 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the building official.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches (6096 mm) on center with four 8d nails per leg (total eight 8d nails per clip). Braced wall panels shall be laterally braced at each top corner and at maximum 24 inches (6096 mm) intervals along the top plate of discontinuous vertical framing.

(aaa) Section 2609 of the 2010 Edition of the California Building Code is hereby deleted.

(bbb) Section 2610.9 is hereby added to Chapter 26 of the 2010 Edition of the California Building Code to read as follows:

2610.9 Approved materials. Regardless of the provisions in Chapter 26, no skylight shall be installed unless the materials, the construction standards, and the location have been approved by the building official, all in accordance with the provisions of this code.

1. Skylights which are flat or corrugated at the roof level shall be provided with an approved supporting barrier immediately above or below the skylight.
2. Each skylight shall not exceed a maximum area of 32 square feet.
3. The aggregate area of all skylights shall not exceed 25 percent of the floor area of the room

or space sheltered by the roof in which they are installed.

4. All existing skylights which are not in conformance with this code are deemed to be hazardous and shall be removed or protected in accordance with this section.

(ccc) Chapter 32 of the 2010 Edition of the California Building Code is hereby deleted.

(ddd) Section J101 of Appendix J of the 2010 Edition of the California Building Code is hereby amended to read as follows:

SECTION J101

GENERAL

J101.1 Scope. The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments and the control of grading site runoff, including erosion sediments and construction-related pollutants. Where conflicts occur between the technical requirements of this chapter and the geotechnical report, the ~~geotechnical report~~ more restrictive requirement shall govern.

J101.2 Flood hazard areas. The provisions of this chapter shall not apply to grading, excavation and earthwork construction, including fills and embankments, in *floodways* within *flood hazard areas* established in Section 1612.3 or in *flood hazard areas* where design *flood* elevations are specified but floodways have not been designated, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

J101.3 Hazards. Whenever the building official determines that any land or any existing excavation or fill has, from any cause, become a menace to life or limb, or endangers public or private property, or adversely affects the safety, use or stability of public or private property, the owner or other person in legal control of the property concerned shall, upon receipt of a written notice thereof from the building official, correct such condition in accordance with the provisions of this appendix and the requirements and conditions set forth in the notice so as to eliminate such condition. The owner or other person in legal control of the property shall immediately comply with the provisions set forth in the notice and shall complete the work within 180 days from the date of the notice unless a shorter period of time for completion has been specified in the notice in which case the owner shall comply with the shorter period of time. Upon written application and

good cause shown, the building official may approve the request for an extension of time to complete the work required by the notice.

J101.4 Safety precautions.

1. If at any stage of work on an excavation or fill, the building official determines that the work has become or is likely to become dangerous to any person, or is likely to endanger any property, public or private, the building official shall be authorized to require safety precautions to be immediately taken by the property owner as a condition to continuing such permitted work or to require cessation thereof forthwith unless and until it is made safe and to amend the plans for such work.
2. Safety precautions may include, but shall not be limited to, specifying a flatter exposed slope or construction of additional drainage facilities, berms, terracing, compaction, cribbing, retaining walls or buttress fills, slough walls, desilting basins, check dams, benching, wire mesh and guniting, rock fences, revetments or diversion walls.
3. Upon the determination of the building official that such safety precautions during grading are necessary, the building official shall provide a notice and order to the permittee to implement same. After receiving such notice, oral or written, it is unlawful for the permittee or any person to proceed with such work contrary to such order.

J101.5 Protection of utilities. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 shall be responsible for the prevention of damage to any public utilities or services.

J101.6 Protection of adjacent property. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 is responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking or other damage that might result. Special precautions approved by the building official shall be made to prevent imported or exported materials from being deposited on the adjacent public way and/or drainage courses.

J101.7 Storm water control measures. The owner and permittee of any property on

which grading has been performed and that requires a grading permit under Section J103 shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding, and deposition of mud, debris and construction-related pollutants originating from the site during, and after, grading and related construction activities. Furthermore, the owner and permittee shall be responsible for putting into effect and maintaining appropriate measures necessary to prevent any change in cross-lot surface drainage that may adversely affect any adjoining property as a result of grading and/or construction-related activities. Such measures to prevent any adverse cross-lot surface drainage effects on adjoining property shall be required whether shown on approved grading plans or not.

J101.8 Conditions of approval. In granting any permit under this code, the building official may include such conditions as may be reasonably necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

1. Improvement of any existing grading to comply with the standards of this code.
2. Requirements for fencing of excavations or fills which would otherwise be hazardous.
3. Establishment of haul routes.

J101.9 Rules and regulations.

J101.9.1 Rules. The permissive provisions of this chapter shall not be presumed to waive any regulations imposed by other statutes or other ordinances of the State of California or the City.

J101.9.2 Regulations. If two or more pertinent regulations are not identical, those regulations shall prevail which are more restrictive or which afford greater safety to life, limb, health, property or welfare. For the purposes of these regulations, grading permits shall be considered as building permits and shall be subject to the administrative provisions of this code, unless otherwise specifically provided for in this chapter.

J101.10 NPDES general. All grading plans and permits shall comply with the provisions of this section for NPDES compliance including the owner of any property on which grading has been performed and which requires a grading permit under Appendix J Section J103. Sites which have been graded and which require a grading permit under Appendix J Section J103 are subject

to penalties and fines. All best management practices shall be installed before grading begins or as instructed in writing by the building official. As grading progresses, all best management practices shall be updated as necessary to prevent erosion and control construction related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the building official unless final grading approval has been granted by the building official and all permanent drainage and erosion control systems, if required, are in place.

J101.10.1 Storm water pollution prevention plan (SWPPP). When requested by the building official, no grading permit shall be issued unless the plans for such work include a Storm Water Pollution Prevention Plan with details of best management practices, including desilting basins or other temporary drainage or control measures, or both, as may be necessary to control construction-related pollutants which originate from the site as a result of construction related activities.

J101.10.2 Wet weather erosion control plans (WWECP). In addition to the SWPPP required in Appendix J Section J101.10.1, where a grading permit is issued and it appears that the grading will not be completed prior to November 1, then on or before October 1 the owner of the site on which the grading is being performed shall file or cause to be filed with the building official a WWECP which includes specific best management practices to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding or the deposition of mud, debris or construction related pollutants. The best management practices shown on the WWECP shall be installed on or before October 15. The plans shall be revised annually or as required by the building official to reflect the current site conditions.

J101.10.3 Storm water pollution prevention plan, effect of noncompliance. Should the owner fail to install the best management practices required by Appendix J Sections J101.10.1 or J101.10.2 or submit the wet weather erosion control plans required by Appendix J Section J101.10.2 by the dates specified therein, the owner shall be subject to penalties established in the City Code. In addition, the building official may enter the property for the purpose of installing, by city forces or by other means, the drainage, erosion control and other

devices shown on the approved plans, or if there are no approved plans, as the building official may deem necessary to protect adjoining property from the effects of erosion, flooding, or the deposition of mud, debris or construction related pollutants. The owner shall be responsible for all costs associated with said work. The building official may also cause the owner to be prosecuted as a violator of this code. Payment of penalty shall not relieve any persons from fully complying with the requirements of this code in the execution of the work."

SECTION 4: Sections 24.15 and 24.16 of Article III of Chapter 24, Building and Construction, of the Code of the City of Vernon, are hereby amended as follows:

A. Section 24.15 is hereby amended to read as follows:

"**Sec. 24.15 2010 California Electrical Code adopted.**

The 2010 California Electrical Code, published by the National Fire Protection Association and the Commission, including standards contained therein, and the 2006 Edition of the International Code Council Electrical Code Administrative Provisions issued by the International Code Council including standards contained therein are hereby adopted by reference as the Electrical Code of the City of Vernon."

B. Section 24.16 is hereby amended to read as follows:

"**Sec. 24.16. Electrical Code amendments, additions, and deletions.**

The 2010 California Electrical Code is hereby amended as follows:

(a) Article 110.14(A) of the 2010 Edition of the California Electrical Code is hereby amended to add the following sentence to the end of the first paragraph:

All stranded aluminum conductors must be terminated with an approved hy-press termination.

(b) Article 200.6 of the 2010 Edition of the California Electrical Code is hereby amended to add the following sentences after the title line:

Color Coding. Grounded conductors of different voltage shall be identified by white and natural gray; grounded conductors of the 277/480 volt system shall be gray; grounded conductors of the lower voltage systems shall be white.

(c) Article 210.7(B) of the 2010 Edition of the California Electrical Code is hereby amended to add the following sentence to the end of the first paragraph:

Upon change of occupancy, use or tenancy all 120 volt ceiling mounted receptacles shall be removed.

(d) Article 230.22 of the 2010 Edition of the California Electrical Code is hereby amended to read as follows:

230.22 Insulation or Covering. Individual conductors shall be insulated or covered. Service entrance conductors from overhead service drops shall be installed in rigid metal raceways.

Exception: The grounded conductor of a multiconductor cable shall be permitted to be bare.

(e) Articles 250.118(5), (6), (7), (8) and (9) of the 2010 Edition of the California Electrical Code are hereby deleted.

(f) Articles 334.10(3) and (4) of the 2010 Edition of the California Electrical Code are hereby deleted.

The 2006 Edition of the International Code Council Electrical Code Administrative Provisions is hereby amended as follows:

(a) Section 303.1 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby amended to read as follows:

Sec 303.1 Use and Occupancy. No building or structure shall be used or occupied until a certificate of occupancy has been provided in accordance with the California Building Code.

(b) Section 401.3(5) of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby deleted.

(c) Section 402.6 is hereby added to the 2006 Edition of the International Code Council Electrical Code Administrative provisions to read as follows:

Sec. 402.6 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(d) Section 404.2 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby amended to read as follows:

Sec. 404.2 Electrical permit fees. Electrical permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(e) Section 1102 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby deleted."

SECTION 5: Sections 24.20 and 24.21 of Article IV of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended as follows:

A. Section 24.20 is hereby amended to read as follows:

"**Sec. 24.20. 2010 California Mechanical Code adopted.**

The 2010 California Mechanical Code, including its Appendices and standards contained therein, copyrighted by the International Association of Plumbing and Mechanical officials and the Commission subject, however, to the amendments, additions and deletions set forth in this article, is hereby adopted by reference as the Mechanical Code of the City of Vernon."

B. Section 24.21 is hereby amended to read as follows:

"**Sec. 24.21. Mechanical Code amendments, additions, and deletions.**

The 2010 California Mechanical Code is amended as follows:

(a) Section 114.6 is hereby added to Chapter 1 of the 2010 Edition of the California Mechanical Code to read as follows:

114.6 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Table 1-1 of the 2010 Edition of the California Mechanical Code is hereby amended to read as follows:

Table 1-1.

MECHANICAL PERMIT FEES:

Mechanical permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid."

SECTION 6: Sections 24.25 and 24.26 of Article V of Chapter 24, Building and Construction, of the Code of the City of Vernon are hereby amended as follows:

A. Section 24.25 is hereby amended to read as follows:

"Sec. 24.25. 2010 California Plumbing Code adopted.

The 2010 California Plumbing Code, including its Appendices and standards contained therein, copyrighted by the International Association of Plumbing and Mechanical Officials, and the Commission, subject, however, to the amendments, additions, and deletions set forth in this article, is hereby adopted by reference as the Plumbing Code of the City of Vernon."

B. Section 24.26 is hereby amended to read as follows:

"Sec. 24.26. Plumbing Code amendments, additions, and deletions.

The 2010 California Plumbing Code is amended as follows:

(a) Section 103.9 is hereby added to Chapter 1 of the 2010 Edition of the California Plumbing Code to read as follows:

103.9 Responsibility of Permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the

proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Table 1-1 of the 2010 Edition of the California Plumbing Code is hereby amended to read as follows:

Table 1-1.

PLUMBING PERMIT FEES:

Plumbing permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(c) Table 4-1 of the 2010 Edition of the California Plumbing Code is hereby amended to add the following sentence after the third paragraph:

If the actual number of expected occupants at the facility exceed the number occupants of provided in table 4-1, the number of plumbing facilities shall be determined based on the actual occupant load.

(d) Section 1101.1 of the 2010 Edition of the California Plumbing Code is hereby amended to read as follows:

1101.1 Where Required. Yard drainage piping and onsite storm drain systems that connect to a public storm drainage systems shall be installed in accordance with this chapter and approved public works standards. Prior to construction of any storm drain system, complete plans and hydraulic calculations shall be approved by the agency whose storm drainage system is to be impacted by the proposed system. Storm water shall flow away from buildings and adjoining properties. All drainage shall be treated in accordance with NPDES requirements."

SECTION 7: Sections 24.60, 24.63 and 24.64 of Article IX of Chapter 24, Building and Construction, of the Code of the City of Vernon, is hereby amended as follows:

A. The Title of Article IX is hereby amended to read as follows:

"**Article IX. Existing Building Code.**"

B. Section 24.60 is hereby amended to read as follows:

"**Sec. 24.60. 2010 California Existing Building Code adopted.**

2010 California Existing Building Code, copyrighted by the International Code Council and Commission, except as provided herein is hereby adopted as the seismic strengthening provisions for unreinforced masonry bearing wall buildings for the City of Vernon."

C. Section 24.63 is hereby amended to read as follows:

"**Sec. 24.63. Compliance with the California Existing Building Code.**

(a) The owner of any unreinforced masonry bearing wall building shall comply with the provisions of the California Existing Building Code whenever the building undergoes a major addition, alteration or repair. For purposes of this section, 'major addition, alteration or repair' means all additions, alterations or repairs within a three year period where the cumulative cost thereof exceeds twenty-five percent (25%) of the assessed value of the building as shown on the last equalized assessment roll, as determined by the building official.

(b) The owner of an unreinforced masonry bearing wall building shall comply with the provisions of the California Existing Building Code when repairs or renovation of an existing roof or roof covering within a three year period involves more than twenty-five (25%) of the total roof area, as determined by the building official.

(c) The owner of an unreinforced masonry bearing wall building shall comply with the provisions of the California Existing Building Code whenever there is change in occupancy classification from a less hazardous to a more hazardous category according to Table 1604.5 of the Building Code.

(d) Any building owner dissatisfied with the determination of the building official pursuant to this section may appeal to the City Council."

D. Section 24.64 is hereby amended to read as follows:

"Sec. 24.64. Chapter A2 and A5 of the 2009 International Existing Building Code adopted.

Chapter A2 of the 2009 International Existing Building Code, published by the International Code Council, is hereby adopted as the minimum standard for seismic strengthening of tilt-up concrete wall buildings, and Chapter A5 of the 2009 International Existing Building Code, published by the International Code Council, is hereby adopted as the minimum standard for seismic strengthening of concrete buildings. These standards are established as a minimum guideline for those property owners voluntarily selecting to retrofit their structures and shall not be construed as the City of Vernon mandated program."

SECTION 8: Sections 24.76 and 24.77 of Article XI of Chapter 24, Building and Construction, of the Code of the City of Vernon are hereby amended as follows:

A. Section 24.76 is hereby amended to read as follows:

"Sec. 24.76. The 2009 Edition of the International Existing Building Code adopted, repair criteria.

The 2009 Edition of the International Existing Building Code, published by the International Code Council, Inc., subject however, to the amendments, additions and deletions set forth in this article, is hereby adopted by reference as the Repair Criteria of the City of Vernon relating to disaster repair and reconstruction."

B. Section 24.77 is hereby amended to read as follows:

"Sec. 24.77. International Existing Building Code amendments, additions and deletions.

The 2009 International Existing Building Code is amended as follows:

(a) International Existing Building Code Section 202 is hereby amended to add the following definitions in alphabetical order:

International Building Code – shall mean the California Building Code as amended by the City of Vernon.

Uncontrollable Event – shall mean an act of god including a seismic event, flood, fire, tsunami or other natural disaster beyond the control of the property owner.

(b) International Existing Building Code Appendix A Chapter A1 is hereby amended to read as follows:

Appendix A Chapter A1

Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings

Section A 101 General – All damaged unreinforced masonry buildings and structures shall be repaired and strengthened in accordance with the California Existing Building Code adopted in Section 24.60."

SECTION 9: Article XIII, Residential Code, is hereby added to Chapter 24, Building and Construction, of the Code of the City of Vernon to read as follows:

A. The title of Article XIII is hereby added to read as follows:

"**Article XIII. Residential Code.**"

B. Section 24.104 is hereby added to read as follows:

"**Sec. 24.104. 2010 California Residential Code adopted.**

The 2010 California Residential Code and Appendix G, including standards contained therein, copyrighted by the International Code Council, and the Commission subject, however, to the amendments, additions, and deletions set forth in this article, are hereby adopted by reference as the Residential Code of the City of Vernon."

C. Section 24.105 is hereby added to read as follows:

"**Sec. 24.105. Residential Code amendments, additions, and deletions.**

The 2010 Residential Code is amended as follows:

(a) Section R105.8 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R105.8 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Section R108.7 is hereby added to Chapter 1 of the 2010 Edition of the California Residential Code to read as follows:

R108.7 Reinspection. A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(c) Section R301.1.3.2 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R301.1.3.2 Woodframe structures ~~greater than two stories~~. The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than two stories and basement in height located in Seismic Design Category A, B or C. Notwithstanding other sections the law, the law establishing these provisions is found in Business and Professions Code Section 5537 and 6737.1.

The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than one story in height or with a basement located in Seismic Design Category D_0, D_1, D_2 or E.

(d) Section R301.1.4 is hereby added to Chapter 3 of the 2010 Edition of the California Residential Code to read as follows:

R301.1.4 Seismic design provisions for buildings constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope). The design and construction of new buildings and additions to existing buildings when constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with Section 1613.12 of the California Building Code.

(e) Section R301.2.2.2.5 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R301.2.2.2.5 Irregular buildings. Prescriptive construction as regulated by this code shall not be

used for irregular structures located in Seismic Design Categories C, D_0, D_1 and D_2. Irregular portions of structures shall be designed in accordance with accepted engineering practice to the extent the irregular features affect the performance of the remaining structural system. When the forces associated with the irregularity are resisted by a structural system designed in accordance with accepted engineering practice, design of the remainder of the building shall be permitted using the provisions of this code. A building or portion of a building shall be considered to be irregular when one or more of the following conditions occur:

1. When exterior shear wall lines or *braced wall panels* are not in one plane vertically from the foundation to the uppermost *story* in which they are required.

   ~~**Exception:** For wood light-frame construction, floors with cantilevers or setbacks not exceeding four times the nominal depth of the wood floor joists are permitted to support *braced wall panels* that are out of plane with *braced wall panels* below provided that:~~

   ~~1. Floor joists are nominal 2 inches by 10 inches (51 mm by 254 mm) or larger and spaced not more than 16 inches (406 mm) on center.~~

   ~~2. The ratio of the back span to the cantilever is at least 2 to 1.~~

   ~~3. Floor joists at ends of braced wall panels are doubled.~~

   ~~4. For wood-frame construction, a continuous rim joist is connected at ends to all cantilever joists. When spliced, the rim joists shall be spliced using a galvanized metal tie not less than 0.058 inch (1.5 mm) (16 gage) and 1 1/2 inches (38 mm) wide fastened with six 16d nails on each side of the splice or a block of the same size as the rim joist of sufficient length to fit securely between the joist space at which the splice occurs fastened with eight 16d nails on each side of the splice; and~~

   ~~5. Gravity loads carried at the end of cantilevered joists are limited to uniform wall and roof loads and the reactions from headers having a span of 18 feet (2438 mm) or less.~~

2. When a section of floor or roof is not laterally supported by shear walls or *braced wall lines* on all edges.

   Exception: Portions of floors that do not support shear walls or *braced wall panels*

above, or roofs, shall be permitted to extend no more than 6 feet (1829 mm) beyond a shear wall or *braced wall line*.

3. When the end of a *braced wall panel* occurs over an opening in the wall below ~~and ends at a horizontal distance greater than 1 foot (305 mm) from the edge of the opening. This provision is applicable to shear walls and *braced wall panels* offset in plane and to *braced wall panels* offset out of plane as permitted by the exception to Item 1 above.~~

   ~~**Exception:** For wood light-frame wall construction, one end of a *braced wall panel* shall be permitted to extend more than one foot (305 mm) over an opening not more than 8 feet (2438 mm) wide in the wall below provided that the opening includes a header in accordance with the following:~~

   ~~1. The building width, loading condition and framing member species limitations of Table R502.5(1) shall apply; and~~

   ~~2. Not less than one 2x12 or two 2x10 for an opening not more than 4 feet (1219 mm) wide; or~~

   ~~3. Not less than two 2x12 or three 2x10 for an opening not more than 6 feet (1829 mm) wide; or~~

   ~~4. Not less than three 2x12 or four 2x10 for an opening not more than 8 feet (2438 mm) wide; and~~

   ~~5. The entire length of the braced wall panel does not occur over an opening in the wall below.~~

4. When an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension.

5. When portions of a floor level are vertically offset.

   ~~**Exceptions:**~~

   ~~1. Framing supported directly by continuous foundations at the perimeter of the building.~~

   ~~2. For wood light-frame construction, floors shall be permitted to be vertically offset when the floor framing is lapped or tied together as required by section R502.6.1.~~

6. When shear walls and *braced wall lines* do not occur in two perpendicular directions.
7. When stories above-*grade* partially or completely braced by wood wall framing in accordance with Section R602 or steel wall framing in accordance with Section R603 include masonry or concrete construction.

   Exception: Fireplaces, chimneys and masonry veneer as permitted by this code. When this irregularity applies, the entire *story* shall be designed in accordance with accepted engineering practice.

(f) Section R301.2.2.3.5.1 is hereby added to Section R301.2.2.3.5 of the 2010 Edition of the California Residential Code to read as follows:

R301.2.2.3.5.1 AISI S230, Section B1. Modify AISI S230, Section B1 to read as follows:

Where No. 8 screws are specified, the required number of screws in a steel-to-steel connection shall be permitted to be reduced in accordance with the reduction factors in Table B1-1 when larger screws are used or when ~~one of~~ the sheets of steel being connected is thicker than 33 mils (0.84mm). When applying the reduction factor, the resulting number of screws shall be rounded up.

(g) Section R322.1.4.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R322.1.4.1 Determination of design flood elevations. If design flood elevations are not specified, the *building official* is authorized to require the applicant to:

1. Obtain and reasonably use data available from a federal, state or other source; or
2. Determine the design flood elevation in accordance with accepted hydrologic and hydraulic engineering practices use to define special flood hazard areas. Determinations shall be undertaken by a registered ~~design professional~~ civil engineer who shall document that the technical methods used reflect currently accepted engineering practice. Studies, analyses and computations shall be submitted in sufficient detail to allow thorough review and approval.

(h) Section R401.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R401.1 Application. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the

design and construction of foundations in areas prone to flooding as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15 240 mm).

Wood foundations in Seismic Design Category D_0, D_1 or D_2 shall ~~be designed in accordance with accepted engineering practice~~ not be permitted.

Exception: In non-occupied, single-story, detached storage sheds and similar uses other than carport or garage, provided the gross floor area does not exceed 200 square feet, the plate height does not exceed 12 feet in height above the grade plane at any point, and the maximum roof projection does not exceed 24 inches.

(i) Section R403.1.2 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R403.1.2 Continuous footing in Seismic Design Categories D_0, D_1 and D_2. The *braced wall panels* at exterior walls of buildings located in Seismic Design Categories D_0, D_1 and D_2 shall be supported by continuous footings. All required interior *braced wall panels* in buildings ~~with plan dimensions greater than 50 feet (15240 mm)~~ shall ~~also~~ be supported by continuous footings.

(j) Section R403.1.3 of the 2010 Edition of the California Residential Code are amended to read as follows:

R403.1.3 Seismic reinforcing. Concrete footings located in Seismic Design Categories D_0, D_1 and D_2, as established in Table R301.2(1), shall have minimum reinforcement. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D_0, D_1 and D_2 where construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D_0, D_1 and D_2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

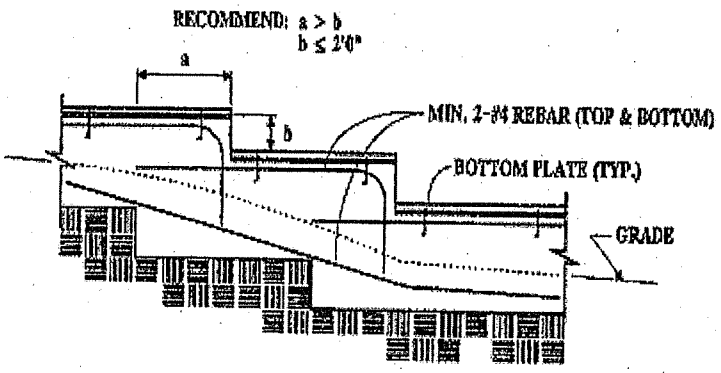
In Seismic Design Categories D_0, D_1 and D_2 masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family *dwellings* located in Seismic Design Category A, B or C which are three stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement supporting walls and isolated plain concrete footings supporting columns or pedestals are permitted.

(k) Section R403.1.5 of the 2010 Edition of the California Residential Code is is hereby amended to read as follows:

R403.1.5 Slope. The top surface of footings shall be level. The bottom surface of footings shall not have a slope exceeding one unit vertical in ten units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the slope of the bottom surface of the footings will exceed one unit vertical in ten units horizontal (10-percent slope).

For structures located in Seismic Design Categories D_0, D_1 or D_2, stepped footings shall be reinforced with four 1/2-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be place at the top and bottom of the footings as shown in Figure R403.1.5.



STEPPED FOUNDATIONS

FIGURE R403.1.5
STEPPED FOOTING

(l) Section R404.2 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

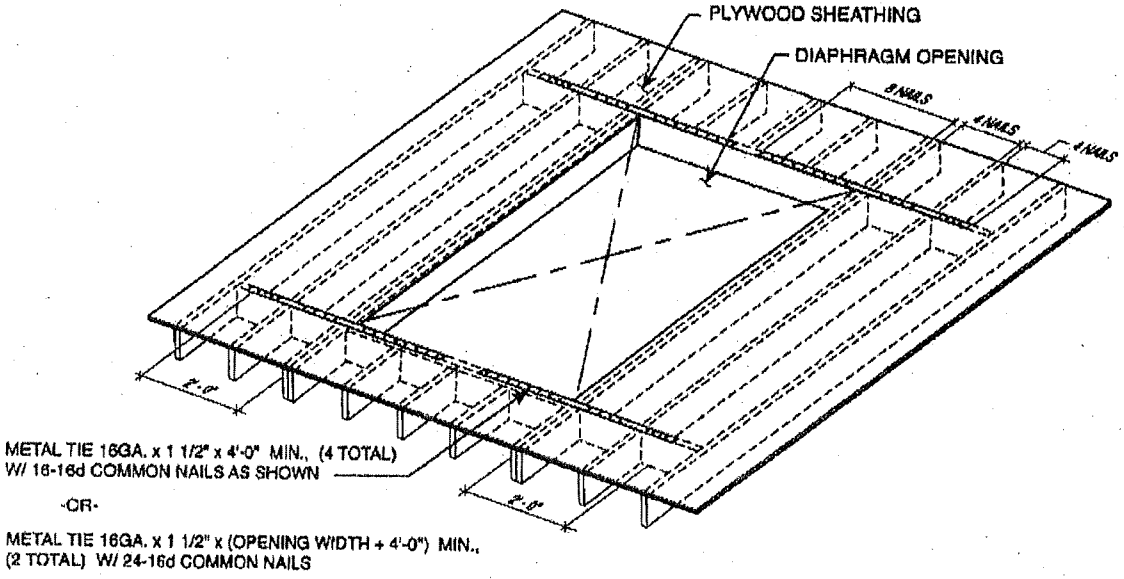
R404.2 Wood foundation walls. Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the details shown in Figures R403.1(2) and R403.2(3). Wood foundation walls shall not be used for structures located in Seismic Design Category D_0, D_1 or D_2.

(m) Section R501.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R501.1 Application. The provision of this chapter shall control the design and construction of the floors for all buildings including the floors of *attic* spaces used to house mechanical or plumbing fixtures and *equipment* weighing less than 400 lbs and maximum height of 4 feet above the floor or attic level.

(n) Section R503.2.4 is hereby added to Chapter 5 of the 2010 Edition of the California Residential Code to read as follows:

R503.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms with a dimension perpendicular to the joist that is greater than 4 feet (1.2 m) shall be constructed in accordance with Figure R503.2.4.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Blockings shall be provided beyond headers.

b. Metal ties not less than 0.058 inch [1.47 mm (16 galvanized gage)] by 1.5 inches (38 mm) wide with eight 16d common nails on each side of the header-joist intersection. The metal ties shall have a minimum yield of 33,000 psi (227 MPa).

c. Openings in diaphragms shall be further limited in accordance with Section R301.2.2.2.5.

FIGURE R503.2.4
OPENINGS IN HORIZONTAL DIAPHRAGMS

(o) Items 34 through 37 of Table R602.3(1) of the 2010 Edition of the California Residential Code are hereby amended to read as follows:

		Other wall sheathing[h]		
34	1/2" structural cellulosic fiberboard sheathing	1/2" galvanized roofing nail; ~~7/16" crown or 1" crown staple 16 ga., 1 1/4" long~~	3	6
35	25/32" structural cellulosic fiberboard sheathing	1 3/4" galvanized roofing nail; ~~7/16" crown or 1" crown staple 16 ga., 1 1/2" long~~	3	6
36	1/2" gypsum sheathing[d]	1 1/2" galvanized roofing nail; ~~staple galvanized, 1 1/2" long;~~ 1 1/4 screws, Type W or S	7	7
37	5/8" gypsum sheathing[d]	1 3/4" galvanized roofing nail; ~~staple galvanized, 1 5/8" long;~~ 1 5/8" screws, Type W or S	7	7

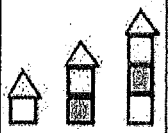
(p) The portions of Table R602.3(2) of the 2010 Edition of the California Residential Code relating to plywood are amended to read as follows:

Wood structural panels subfloor, roof and wall sheathing to framing and particleboard wall sheathing to framing[f]			
up to 1/2	~~Staple 15 ga. 1 3/4~~	~~4~~	~~8~~
	0.097 - 0.099 Nail 2 1/4	3	6
	~~Staple 16 ga. 1 3/4~~	~~3~~	~~6~~
19/32 and 5/8	0.113 Nail 2	3	6
	~~Staple 15 and 16 ga. 2~~	~~4~~	~~8~~
	0.097 - 0.099 Nail 2 1/4	4	8
23/32 and 3/4	~~Staple 14 ga. 2~~	~~4~~	~~8~~
	~~Staple 15 ga. 1 3/4~~	~~3~~	~~6~~
	0.097 - 0.099 Nail 2 1/4	4	8
	~~Staple 16 ga. 2~~	~~4~~	~~8~~
1	~~Staple 14 ga. 2 1/4~~	~~4~~	~~8~~
	0.113 Nail 2 1/4	3	6
	~~Staple 15 ga. 2 1/4~~	~~4~~	~~8~~

Floor underlayment; plywood-hardboard-particleboard[f]			
Plywood			
1/4 and 5/16	1 1/4 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	3	6
	~~Staple 18 ga., 7/8, 3/16 crown width~~	~~2~~	~~5~~
11/32, 3/8, 15/32, and 1/2	1 1/4 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	6	8[e]
19/32, 5/8, 23/32 and 3/4	1 1/2 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	6	8
	~~Staple 16 ga. 1 1/2~~	~~6~~	~~8~~

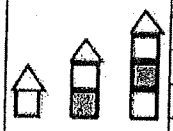
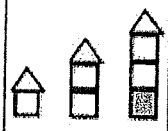
(q) Table R602.10.1.2(2) of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

TABLE R602.10.1.2(2)[a,b,c]
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
(AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS D[e] WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods[d] DWB, SFB, GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC A and B and Detached Dwellings in C		Exempt from Seismic Requirements Use Table R602.10.1.2(1) for Bracing Requirements				
SDC C		10	2.5	2.5	1.6	1.4
		20	5.0	5.0	3.2	2.7
		30	7.5	7.5	4.8	4.1
		40	10.0	10.0	6.4	5.4
		50	12.5	12.5	8.0	6.8
		10	NP	4.5	3.0	2.6
		20	NP	9.0	6.0	5.1
		30	NP	13.5	9.0	7.7
		40	NP	18.0	12.0	10.2
		50	NP	22.5	15.0	12.8
		10	NP	6.0	4.5	3.8
		20	NP	12.0	9.0	7.7
		30	NP	18.0	13.5	11.5
		40	NP	24.0	18.0	15.3
		50	NP	30.0	22.5	19.1
SDC D_0 or D_1		10	NP	~~3.0~~ 6.0	2.0	1.7
		20	NP	~~6.0~~ 12.0	4.0	3.4
		30	NP	~~9.0~~ 18.0	6.0	5.1
		40	NP	~~12.0~~ 24.0	8.0	6.8
		50	NP	~~15.0~~ 30.0	10.0	8.5
		10	NP	~~6.0~~ NP	4.5	3.8
		20	NP	~~12.0~~ NP	9.0	7.7
		30	NP	~~18.0~~ NP	13.5	11.5
		40	NP	~~24.0~~ NP	18.0	15.3
		50	NP	~~30.0~~ NP	22.5	19.1
		10	NP	~~8.5~~ NP	6.0	5.1
		20	NP	~~17.0~~ NP	12.0	10.2
		30	NP	~~25.5~~ NP	18.0	15.3
		40	NP	~~34.0~~ NP	24.0	20.4
		50	NP	~~42.5~~ NP	30.0	25.5

(continued)

TABLE R602.10.1.2(2)[a,b,c]—continued
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
(AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS D[a] WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	METHODS DWB, SFB, GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC D_2		10	NP	~~4.0~~ 8.0	2.5	2.1
		20	NP	~~8.0~~ 16.0	5.0	4.3
		30	NP	~~12.0~~ 24.0	7.5	6.4
		40	NP	~~16.0~~ 32.0	10.0	8.5
		50	NP	~~20.0~~ 40.0	12.5	10.6
		10	NP	~~7.5~~ NP	5.5	4.7
		20	NP	~~15.0~~ NP	11.0	9.4
		30	NP	~~22.5~~ NP	16.5	14.0
		40	NP	~~30.0~~ NP	22.0	18.7
		50	NP	~~37.5~~ NP	27.5	23.4
		10	NP	NP	NP	NP
		20	NP	NP	NP	NP
		30	NP	NP	NP	NP
		40	NP	NP	NP	NP
		50	NP	NP	NP	NP

For SI: 1 foot = 304.8 mm, 1 pound per square foot = 47.80 Pa.

a. Wall bracing lengths are based on a soil site class "D." Interpolation of bracing length between the S_{DS} values associated with the seismic design categories shall be permitted when a site-specific S_{DS} value is determined in accordance with Section 1613.5 of the *California Building Code*.

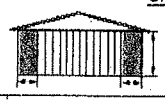
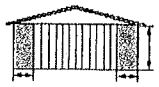
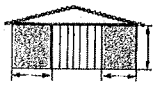
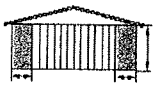
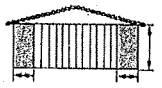
b. Foundation cripple wall panels shall be braced in accordance with Section R602.10.9.

c. Methods of bracing shall be as described in Sections R602.10.2, R602.10.4 and R602.10.5.

d. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D_0, D_1, or D_2. Methods DWB, SFB, PBS, and HPS are not permitted in SDC D_0, D_1, or D_2.

(r) The portions of Table R602.10.2 relating to WSP, SFB, GB, PBS and PCP methods of the 2010 Edition of the California Residential Code are hereby amended to read as follows:

TABLE R602.10.2
INTERMITTENT BRACING METHODS[a]

WSP	Wood structural panel (see Section R604)	~~3/8"~~ 15/32"		8d common (2 ½" x 0.131) nails at 6" spacing (panel edge) at 12" spacing (intermediate supports), 3/8" edge distance to panel edge ~~For exterior/interior sheathing see Table R602.3(3) For interior sheathing see Table R602.3(1)~~
SFB	Structural fiberboard sheathing	1/2" or 25/32" for maximum 16" stud spacing		1 1/2" galvanized roofing nails or 8d common (2 1/2" x 0.131) nails at 3" spacing (panel edges) at 6" spacing (intermediate supports)
GB	Gypsum board	1/2"		Nails or screws at 7" spacing at panel edges including top and bottom plates; for all braced wall panel locations for exterior sheathing nail or screw size, see Table R602.3(1); for interior gypsum board nail or screw size, see Table R702.3.5
PBS	Particleboard sheathing (see Section R605)	3/8" or 1/2" for maximum 16" stud spacing		1 1/2" galvanized roofing nails or 8d common (2 1/2" x 0.131) nails at 3" spacing (panel edges) at 6 spacing (intermediate supports)
PCP	Portland cement plaster	See Section R703.6 For maximum 16" stud spacing		1 1/2", 11 gage, 7/16" head nails at 6" spacing ~~or 7/8", 16 gage staples at 6" spacing~~

a. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D_0, D_1, and D_2.

Methods LIB, DWB, SFB, PBS, HPS, and PFG are not permitted in SDC D_0, D_1, and D_2.

(s) Figure R602.10.3.2 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

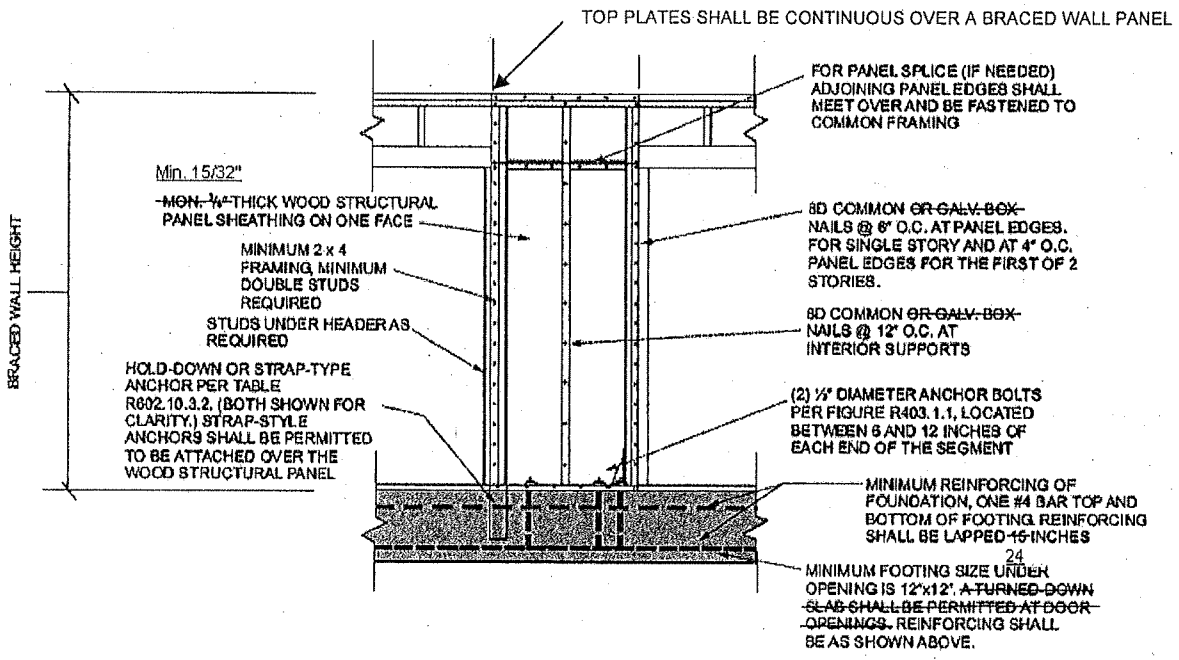


FIGURE R602.10.3.2
ALTERNATE BRACED WALL PANEL

(t) Figure R602.10.3.3 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

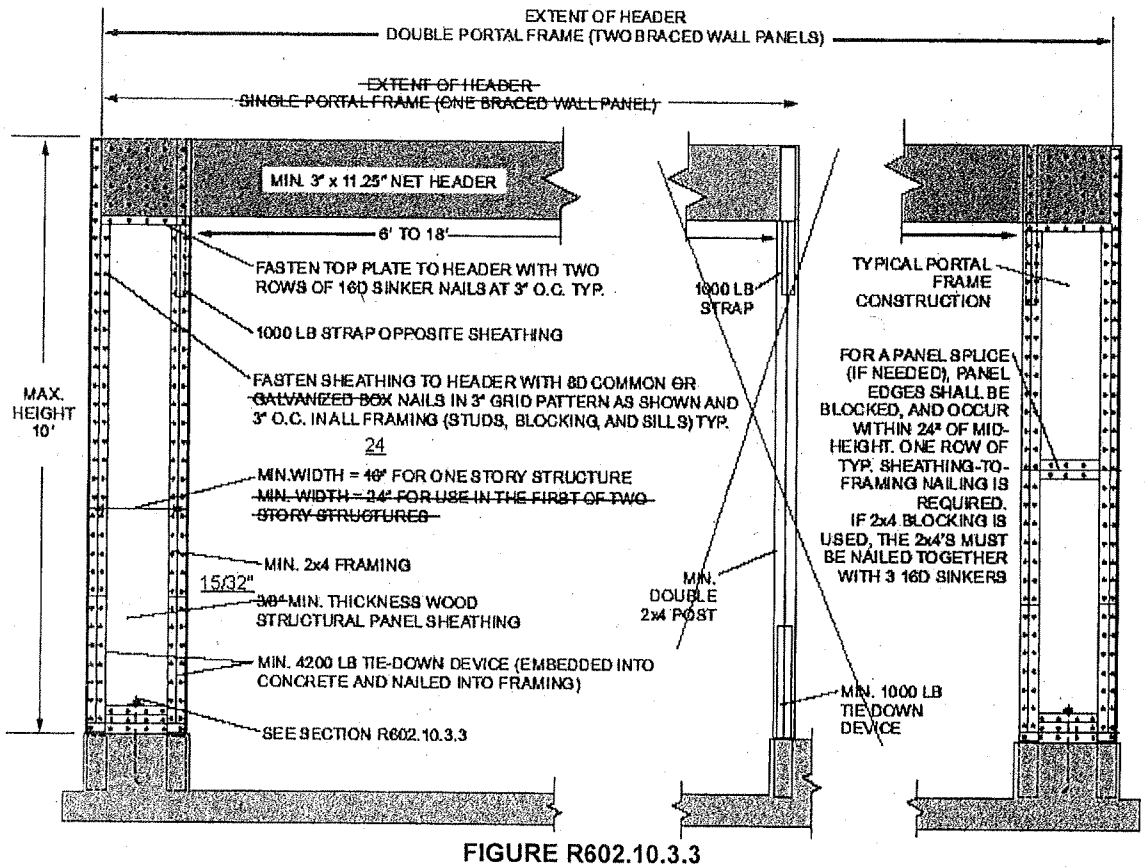


FIGURE R602.10.3.3
METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS AT DETACHED GARAGE DOOR OPENINGS

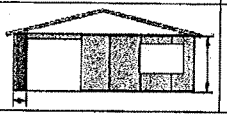
(u) Item 1 of Section R602.10.3.3 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

1. Each panel shall be fabricated in accordance with Figure R602.10.3.3. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure R602.10.3.3. A spacer, if used with a built-up header, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. One anchor bolt not less than 5/8-inch-diameter (16 mm) and installed in accordance with Section R403.1.6 shall be provided in the center of each sill plate. The hold-down devices shall be an embedded-strap type, installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation that is continuous across the entire length of the braced wall

line. The foundation shall be reinforced as shown on Figure R602.10.3.2. This reinforcement shall be lapped not less than ~~15~~24 inches (~~381~~ 610 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

(v) Table R602.10.4.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

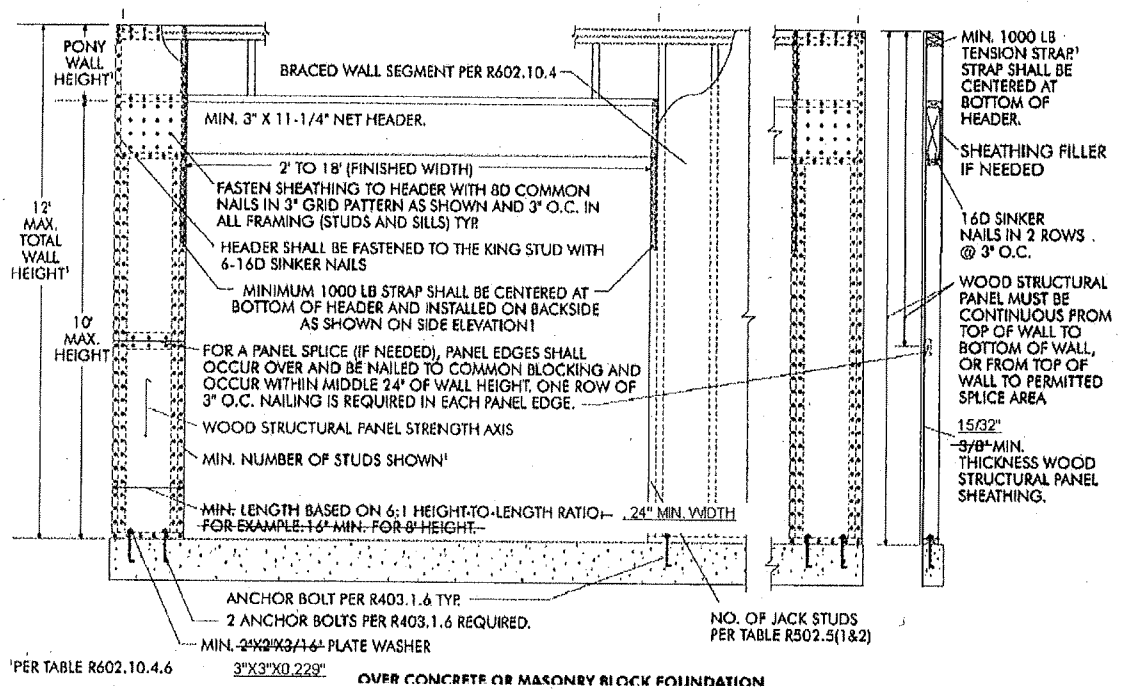
TABLE R602.10.4.1
CONTINUOUS SHEATHING METHODS

METHOD	MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA
CS-WSP	Wood structural panel	15/32" ~~3/8"~~	8d	~~6d~~ common (2" × 0.113") nails at 6" spacing (panel edges) and at 12" spacing (intermediate supports) ~~or 16 ga. × 1 3/4" staples at 3" spacing (panel edges) and 6" spacing (intermediate supports)~~
CS-G	Wood structural panel adjacent to garage openings and supporting roof load only[a,b]	15/32" ~~3/8"~~		See Method CS-WSP
CS-PF	Continuous portal frame	See Section R602.10.4.1.1		See Section R602.10.4.1.1

a. Applies to one wall of garage only.

b. Roof covering dead loads shall be 3 psf or less.

(w) The "Over Concrete or Masonry Block Foundation" drawing of Figure R602.10.4.1.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:



(x) Section R602.10.7.1 of the 2010 Edition of the California Residential Code is hereby deleted.

(y) Section R606.2.4 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R606.2.4 Parapet walls. Unreinforced *solid masonry* parapet walls shall not be less than 8 inches (203 mm) thick and their height shall not exceed four times their thickness. Unreinforced hollow unit masonry parapet walls shall be not less than 8 inches (203 mm) thick, and their height shall not exceed three times their thickness. Masonry parapet walls in areas subject to wind loads of 30 pounds per square foot (1.44 kPa) or located in Seismic Design Category D_0, D_1 or D_2, or on townhouses in Seismic Design Category C shall be reinforced in accordance with Section R606.12.

(z) Section R606.12.2.2.3 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R606.12.2.2.3 Reinforcement of requirements for masonry elements. Masonry elements listed in Section R606.12.2.2.2 shall be reinforced in either the horizontal or vertical direction as shown in Figure ~~R606.11(2)~~R606.11(3) and in accordance with the following:

1. Horizontal reinforcement. Horizontal joint reinforcement shall consist of ~~at least two longitudinal W1.7 wires spaced not more than 16 inches (406 mm) for walls greater than 4 inches (102 mm) in width and at least one longitudinal W1.7 wire spaced not more than 16 inches (406 mm) for walls not exceeding 4 inches (102 mm) in width; or~~ at least one No. 4 bar spaced not more than 48 inches (1219 mm). ~~Where two longitudinal wires of joint reinforcement are used, the space between these wires shall be the widest that the mortar joint will accommodate.~~ Horizontal reinforcement shall be provided within 16 inches (406 mm) of the top and bottom of these masonry elements.
2. Vertical reinforcement. Vertical reinforcement shall consist of at least one No. 4 bar spaced not more than 48 inches (1219 mm). Vertical reinforcement shall be within ~~16~~ 8 inches (406 mm) of the ends of masonry walls.

(aa) Exception of Section R602.3.2 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

Exception: In other than Seismic Design Category D_0, D_1 or D_2, ~~a~~ A single top plate may be installed in stud walls, provided the plate is adequately tied at joints, corners and interesting walls by a minimum 3-inch-by-6-inch by a 0.036-inch-thick (76 mm by 152 mm by 0.914 mm) galvanized steel plate that is nailed to each wall or segment of wall by six 8d nails on each side, provided the rafters or joists are centered over the studs with a tolerance of no more than 1 inch (25 mm). The top plate may be omitted over lintels that are adequately tied to adjacent wall sections with steel plates or equivalent as previously described.

(bb) Footnote "i" is hereby added to Table R802.5.1(9) of the 2010 Edition of the California Residential Code to read as follows:

i. Edge distances, end distances and spacings for nails shall be sufficient to prevent splitting of the wood.

(cc) Section R802.8 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R802.8 Lateral support. Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding ~~5~~2 to 1 based on nominal dimensions shall be provided with lateral support at points of bearing to prevent rotation. For roof rafters with ceiling joists attached per Table R602.3(1), the depth-

thickness ratio for the total assembly shall be determined using the combined thickness of the rafter plus the attached ceiling joist.

(dd) Section R802.10.2 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R802.10.2 Design. Wood trusses shall be designed in accordance with accepted engineering practice. The design and manufacture of metal-plate-connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional ~~where required by the statutes of the *State of California or the jurisdiction* in which the project is to be constructed.~~

(ee) Section R803.2.4 is hereby added to Chapter 8 of the 2010 Edition of the California Residential Code to read as follows:

R803.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms shall conform with Section R503.2.4.

(ff) Section R902.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R902.1 Roof covering materials The roof assembly on any structure regulated by this code shall be as set forth in Sections R904 and R905, except that only fire retardant roof coverings meeting class A or B roofing assemblies are permitted in the City of Vernon. Roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. The roofing assembly includes the roofdeck, underlayment, interlayment, insulation and covering, which is assigned a roof classification.

(gg) Section R1001.3.1 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R1001.3.1 Vertical reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars adequately anchored into the concrete foundation shall be placed between wythes of *solid masonry* or within the cells of hollow unit masonry and grouted in accordance with Section R609. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars adequately anchored into the concrete foundation shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction

thereof."

SECTION 10: Article XV, Green Building Standards Code, is hereby added to Chapter 24, Building and Construction, of the Code of the City of Vernon to read as follows:

A. The title of Article XV is hereby added to read as follows:

"**Article XV. Green Building Standards Code.**"

B. Section 24.106 is hereby added to read as follows:

"**Sec. 24.106. 2010 California Green Building Standards Code adopted.**

The 2010 California Green Building Standards Code, including standards contained therein, copyrighted by the Commission subject, however, to the amendments, additions, and deletions set forth in this article, are hereby adopted by reference as the Green Building Standards Code of the City of Vernon."

C. Section 24.107 is hereby added to read as follows:

"**Sec. 24.107. Green Building Standards Code amendments, additions, and deletions.**

The 2010 California Green Building Standards Code is amended as follows:

(a) Section 101.10 of the 2010 Edition of the California Green Building Standards Code is hereby amended to read as follows:

101.10 Mandatory and voluntary requirements. This code contains both mandatory and voluntary green building measures. Mandatory and voluntary measures are identified in the appropriate application checklist contained in this code. The mandatory measures of Chapter 4 and voluntary measures of Appendix A4 shall apply to new low-rise residential buildings. The mandatory measures of Chapter 5 and voluntary measures of Appendix A5 shall apply to all buildings which are not low-rise residential buildings.

(b) Section 101.12 is hereby added to the 2010 California Green Building Standards Code to read as follows:

Section 101.12 Green building standards permit fee. Green Building Standards permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(c) The definition of "low-rise residential building" in Section 202 of the 2010 Edition of the California Green Building Standards Code is hereby amended to read as follows:

LOW-RISE RESIDENTIAL BUILDING. A building that is of Occupancy Group R and is ~~three~~six stories or less, or that is a one- or two-family dwelling or townhouse.

(d) The definition of "sustainability" is hereby added to Section 202 of the 2010 Edition of the California Green Building Standards Code in alphabetical order to read as follows:

SUSTAINABILITY. Consideration of present development and construction impacts on the community, the economy, and the environment without compromising the needs of the future.

(e) Section 4.304.1 of the 2010 Edition of the California Green Building Standards Code is hereby amended to read as follows:

4.304.1 Irrigation controllers. Automatic irrigation system controllers for landscaping provided ~~by the builder~~ and installed at the time of final inspection and shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association."

SECTION 11: Article XIV, Energy Code, is hereby added to Chapter 24, Building and Construction, of the Code of the City of Vernon to read as follows:

A. The title of Article XIV is hereby added to read as follows:

"**Article XIV. Energy Code.**"

B. Section 24.108 is hereby added to read as follows:

"**Sec. 24.108. 2010 California Energy Code adopted.**

The 2010 California Energy Code, including its Appendices and standards contained therein, copyrighted by the Commission subject, however, to the amendments, additions, and deletions set forth in this article, are hereby adopted by reference as the Energy Code of the City of Vernon."

C. Section 24.109 is hereby added to read as follows:

"Sec. 24.109. Energy Code amendments, additions, and deletions.

The 2010 California Energy Code is amended as follows:

(a) Paragraph (i) is hereby added to Section 100 of the 2010 California Energy Code to read as follows:

(i) Energy permit fee. Energy permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid."

SECTION 12: Board of Appeals, Repealed.

Section 24.7 of the City Code, Board of Appeals, is hereby repealed from the code and this section shall be held as reserved.

SECTION 13: Ordinances Repealed.

Any ordinance, part of an ordinance, or code section in conflict with this Ordinance is hereby repealed.

SECTION 14: Severability. If any section, subsection, sentence, clause, or phrase or word of this ordinance is for any reason held to be void or unconstitutional, such decision shall not affect

the validity of the remaining portions of this ordinance; it being the intention of the City Council of the City of Vernon to adopt and pass this ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that one or more of the sections, subsections, clauses, sentences or phrases thereof may be declared void or unconstitutional.

SECTION 15: Copies on File with City Clerk. Pursuant to Government Code Section 50022.6, one certified copy of each of the following: the 2010 California Building Code; the 2010 California Electrical Code, and the 2006 Edition of the ICC Electrical Code Administrative Provisions; the 2010 California Mechanical Code; the 2010 California Plumbing Code; the 2010 California Existing Building Code; the 2009 International Existing Building Code; the 2010 California Residential Code; the 2010 California Green Building Standards Code; and, the 2010 California Energy Code shall be made available for public inspection in the office of the City Clerk.

SECTION 16: Book of Ordinances. The City Clerk shall attest and certify to the adoption of this Ordinance and shall cause this Ordinance and the City Clerk's certification to be entered in the Book of Ordinances of the Council of this City. The City Clerk shall cause this ordinance to be published or posted as required by law.

SECTION 17: Effective Date. This ordinance shall be in full force and effect on January 5, 2011.

APPROVED AND ADOPTED this 6th day of December, 2010.

HILARIO GONZALES, Mayor

ATTEST:

WILLARD G. YAMAGUCHI, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, WILLARD G. YAMAGUCHI, City Clerk of the City of Vernon, do hereby certify that the foregoing Ordinance, being Ordinance No. 1176, was duly and regularly introduced at a meeting of the City Council of the City of Vernon, held in the City of Vernon on Monday, November 1, 2010, and thereafter adopted at a meeting of said City Council held on Monday, December 6, 2010, by the following vote:

AYES:	Councilmembers:	Mayor Gonzales, McCormick, Davis, Maisano, Newmire
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	None

And thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 10 day of December, 2010, at Vernon, California.

WILLARD G. YAMAGUCHI
City Clerk

(SEAL)

CERTIFICATE

STATE OF CALIFORNIA)

) ss

COUNTY OF LOS ANGELES)

I, Willard Yamaguchi, City Clerk of the City of Vernon, County of Los Angeles, State of California, hereby certify that the attached is a full and complete copy of:

> **Resolution No. 2010-175** - A Resolution of the City Council of the City of Vernon Making Express Findings and Determinations that Modifications to the 2010 California Building Code, 2010 California Electrical Code, and the 2006 Edition of the ICC Electrical Code Administrative Provisions, 2010 California Mechanical Code, 2010 California Plumbing Code, 2010 California Existing Building Code, 2009 International Existing Building Code, 2010 Residential Code, 2010 Green Building Standards Code, and 2010 Energy Code are Reasonably Necessary Because of Local Climatic, Geological or Topographical Conditions

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official Seal of the City of Vernon, County of Los Angeles, State of California, on this 15 day of December 2010.

SEAL:

Willard G. Yamaguchi
City Clerk

RESOLUTION NO. 2010-175

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VERNON MAKING EXPRESS FINDINGS AND DETERMINATIONS THAT MODIFICATIONS TO THE 2010 CALIFORNIA BUILDING CODE, 2010 CALIFORNIA ELECTRICAL CODE, AND THE 2006 EDITION OF THE ICC ELECTRICAL CODE ADMINISTRATIVE PROVISIONS, 2010 CALIFORNIA MECHANICAL CODE, 2010 CALIFORNIA PLUMBING CODE, 2010 CALIFORNIA EXISTING BUILDING CODE, 2009 INTERNATIONAL EXISTING BUILDING CODE, 2010 RESIDENTIAL CODE, 2010 GREEN BUILDING STANDARDS CODE, AND 2010 ENERGY CODE ARE REASONABLY NECESSARY BECAUSE OF LOCAL CLIMATIC, GEOLOGICAL OR TOPOGRAPHICAL CONDITIONS

WHEREAS, Health and Safety Code Section 17958 provides that the City of Vernon may adopt ordinances and regulations imposing the same or modified requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and

WHEREAS, the State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Building Standards Administrative Code, the California Building Code, the California Residential Code, the California Electrical Code, the California Mechanical Code, the California Plumbing Code, the California Energy Code, the California Historical Building Code, the California Fire Code, the California Existing Building Code, the California Green Building Standards Code and the California Reference Standards Code (hereinafter referred to collectively as "Codes"); and

WHEREAS, Health and Safety Code Section 17958.5 permits the City to make modifications or changes to the Codes, which are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, Health and Safety Code Section 17958.7(a) requires that the City Council, before making any modifications or changes to the Codes, shall make an express finding that such changes or modifications are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, modification to administrative sections of the Codes are proposed to be made in order to clarify the responsibility of the permittee, permit fees, Appeals Board and other provisions which do not modify the Building Standards pursuant to Health and Safety Code Sections 17958, 17958.5 and 17958.7; and

WHEREAS, the City of Vernon is also adopting the 2006 ICC Electrical Code Administrative Provisions and the 2009 International Existing Building Code with modifications.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VERNON AS FOLLOWS:

Section 1: The Community Services Department has recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the 2010 Editions of the California Building, Electrical, Mechanical, Plumbing, Existing Building, Residential, Green Building Standards, and Energy Codes, and the 2006 ICC Electrical Code Administrative Provisions, and the 2009 International Existing Building Code are reasonably necessary to clarify administrative provisions or due to local conditions in the City of Vernon as described below:

A. Climatic Conditions. Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.

B. Geological Conditions. Geological conditions in the City of Vernon are affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the City.

C. Topographical Conditions. Topographical conditions of the City of Vernon coupled with the density of buildings, limited setbacks, narrow access to buildings and narrow streets potentially create a problem for governmental agencies to respond to emergency conditions.

SECTION 2: Amendments to the 2010 Editions of the California Building, Electrical, Mechanical, Plumbing, Existing Building, Residential, Green Building Standards, and Energy Codes, and the 2006 ICC Electrical Code Administrative Provisions and the 2009 International Existing Building Code as contained in City of Vernon Ordinance No. 1176, are found reasonably necessary based on the climatic, geological and/or topographical conditions cited above in Paragraphs A, B and C of Section 1 of this Resolution and for administrative clarification are listed as follows:

Building Code Section	**Local Condition**	**Explanation and Findings**
105.8	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
110.7	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

Building Code Section	Local Condition	Explanation and Findings
111.1	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
1505.1	Climatic, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
1613.6.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification emphasize that the design concern is for seismic-force-resisting elements and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
Equation 16-44 of Section 1613.6.7	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to omit the importance factor in the equation ensures that a safe seismic separation distance is maintained for important facilities from adjoining structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1613.8	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed

Building Code Section	Local Condition	Explanation and Findings
		amendment provides clarification on the design parameters for BRBF members and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code and ASCE 7-05.
1613.9	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit mixed structural system to two stories is intended to improve quality of construction by reducing potential damages that may result from vertical irregularities of the structural system in buildings subject to high seismic load and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1613.10	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification is intended to improve the likelihood that important and critical buildings and structures remain operational in the event of an emergency resulting from seismic activities and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1613.11	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require special anchorage of the diaphragm to the wall and limit the allowable shear will address special needs for concrete and masonry construction with flexible wood diaphragm and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1613.12	Topographical, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not

Building Code Section	Local Condition	Explanation and Findings
		limited to the recent 1994 Northridge Earthquake. Additionally, the topography within the Los Angeles region includes significant hillsides with narrow and winding access that makes timely response by fire suppression vehicles challenging and difficult. The proposed modification establishes design parameters to better mitigate and limit property damage that are the results of increased seismic forces which are imparted upon hillside buildings and structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1613.13	Geological	The greater Los Angeles/Long Beach region is a densely populated area having buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification requiring safe design and construction requirements for ceiling suspension systems to resist seismic loads is intended to minimize the amount of damage within a building and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code.
1704.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require special inspection for concrete with a compressive strength greater than 2,500 psi to improve quality of control during construction and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1704.8	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require special inspection of connecting grade beams to ensure adequate performance of the foundation system and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.

Building Code Section	Local Condition	Explanation and Findings
1704.9	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require special inspection of connecting grade beams to ensure adequate performance of the foundation system and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1705.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require special inspections for detached one- or two-family dwellings not exceeding two stories above grade plane assigned to Seismic Design Category D, E and F will help ensure that acceptable standards of workmanship and quality of construction are provided and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1710.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require the registered design professional in responsible charge for the structural design to observe the construction will help ensure acceptable standards of workmanship is provided and to improve the quality of the observation and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1710.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require the registered design professional in responsible charge for the structural design to observe the construction will help ensure acceptable standards of workmanship is provided and to improve the quality of the observation and therefore need to be

Building Code Section	Local Condition	Explanation and Findings
		incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1807.1.4	Climatic, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood foundation systems as well as limit prescriptive design provisions in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1807.1.6	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to prohibit prescriptive design provisions for foundation walls as plain concrete have performed poorly in withstanding the cyclic forces resulting from seismic events and to require the walls to be designed by a registered design professional to ensure that the proper analysis of the structure takes into account the surrounding condition and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1809.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require minimum reinforcement in stepped footings is intended to improve performance of buildings and structures and

Building Code Section	Local Condition	Explanation and Findings
		therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1809.7	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the use of the prescriptive design provisions and under-reinforced or plain concrete is to ensure that the proper analysis of the structure takes into account the surrounding condition and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1809.12	Climatic, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of timber footings in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1810.3.2.4	Climatic, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of timber deep foundation in an effort

Building Code Section	Local Condition	Explanation and Findings
		to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1908.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to increase confinement in critical columns, limiting the use of highly gravity loaded walls, and increase concrete coverage in thin slabs will have to prevent failure of the structure and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1908.1.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to intermediate structural wall system is intended to assure that ductility requirements for high seismic region is provided and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code and ACI 318.
1908.1.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to wall pier detailing is intended to assure that ductility requirements for high seismic region is provided and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code and ACI 318.
1908.1.8	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault

Building Code Section	Local Condition	Explanation and Findings
		systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require minimum reinforcement to address the problem of poor performance of plain or under-reinforced footings during a seismic event and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
1909.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to prohibit the reduced edge thickness of footings supporting walls is intended to ensure that the proper analysis of the structure takes into account the surrounding condition and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2204.1.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed amendment is consistent with requirements in AISC 341-10 for improving quality of critical welds and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code and ASCE 7-05.
2205.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed amendment is intended to reduce and minimize fracture of rectangular and square brace frame members due to local buckling behavior of the cross section and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building

Building Code Section	Local Condition	Explanation and Findings
		Code and ASCE 7-05.
2304.11.7	Geological, Climatic	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood in retaining or crib walls in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2305.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require mechanically driven nails to have the same dimensions as hand-driven nail will result in improved quality of construction and performance of wood structural panel shear walls and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2305.5	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to establish minimum performance requirements for hold-down connectors will reduce failure of wood structural panel shear walls due to excessive deflection and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.

Building Code Section	**Local Condition**	**Explanation and Findings**
Table 2306.2.1(3)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as fasteners used in wood structural panel or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
Table 2306.2.1(4)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as fasteners used in wood structural panel or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2306.2.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as fasteners used in wood structural panel or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
Table 2306.3(2)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail

Building Code Section	Local Condition	Explanation and Findings
		fasteners used in wood structural panel shear walls or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2306.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail fasteners used in wood structural panel shear walls or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
Table 2306.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail fasteners used in wood structural panel shear walls or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2306.7	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the location where shear walls sheathed with lath, plaster or gypsum board are used will help to ensure that multi-level building will reach it's performance objective in resisting higher levels of seismic loads and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in

Building Code Section	Local Condition	Explanation and Findings
		accordance with the scope and objectives of the International Building Code.
2308.3.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Conventional framing does not address the need for a continuous load path, critical shear transfer mechanisms, connection-ties, irregular and flexible portions of complex shaped structures. The proposed modification to require continuous footings under braced wall lines will improve performance of buildings or structure during a seismic event and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code.
2308.12.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Conventional framing does not address the need for a continuous load path, critical shear transfer mechanisms, connection ties, irregular and flexible portions of complex shaped structures. Unless designed by a registered design professional, such buildings built by conventional framing requirements will be prone to serious damage in future large earthquakes. The proposed modification need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code.
2308.12.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Conventional framing does not address the need for a continuous load path, critical shear transfer mechanisms, connection-ties, irregular and flexible portions of complex shaped structures. The proposed modification to provide specific detailing requirements will improve the performance of buildings and structures and therefore needs to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code.

Building Code Section	Local Condition	Explanation and Findings
Table 2308.12.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Conventional framing does not address the need for a continuous load path, critical shear transfer mechanisms, connection-ties, irregular and flexible portions of complex shaped structures. The proposed modification to provide specific detailing requirements will improve the performance of buildings and structures and therefore needs to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code.
2304.9.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the use of staple fasteners to resist or transfer seismic load improve the performance of buildings and structures during a seismic event and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
Table 2304.9.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the use of staple fasteners to resist or transfer seismic load improve the performance of buildings and structures during a seismic event and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2308.12.5	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the use of staple fasteners to resist or transfer seismic load improve the performance of buildings and structures during a seismic event and therefore need to be incorporated into the

Building Code Section	Local Condition	Explanation and Findings
		code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code.
2609	Climatic, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
2610.9	Climatic, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
Chapter 32	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
J101	Climatic, Geological	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.

Electrical Code Article	Local Condition	Explanation and Findings
110.14(A)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon, increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;

Electrical Code Article	Local Condition	Explanation and Findings
		The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
200.6	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
210.7(B)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
230.22	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
250.118(5)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact

Electrical Code Article	Local Condition	Explanation and Findings
		governmental agencies response to emergency conditions.
250.118(6)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
250.118(7)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
250.118(8)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
250.118(9)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.

Electrical Code Article	Local Condition	Explanation and Findings
334.10(3)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
334.10(4)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.

2006 ICC Electrical Code Administrative Provisions Section	Local Condition	Explanation and Findings
303.1	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
401.3(5)	Climatic, Geological, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially

		impact governmental agencies response to emergency conditions.
402.6	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
404.2	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
1102	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

Mechanical Code Section	**Local Condition**	**Explanation and Findings**
114.6	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
Table 1-1	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

Plumbing Code Section	**Local Condition**	**Explanation and Findings**
103.9	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

Plumbing Code Section	Local Condition	Explanation and Findings
Table 1-1	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
Table 4-1	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
1101.1	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

Residential Code Section	Local Condition	Explanation and Findings
R105.8	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
R108.7	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
R301.1.3.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require construction documents for wood frame construction greater than one story in height or with a basement to be approved and stamped by a California licensed architect or engineer is intended to assure that the both the structural design and prescriptive requirement of the code are properly utilized and presented and therefore need to be incorporated into the code to

Residential Code Section	Local Condition	Explanation and Findings
		assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R301.1.4	Topographical, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Additionally, the topography within the Los Angeles region includes significant hillsides with narrow and winding access that makes timely response by fire suppression vehicles challenging and difficult. The proposed modification establishes design parameters to better mitigate and limit property damage that are the results of increased seismic forces which are imparted upon hillside buildings and structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R301.2.2.2.5	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed amendment limits the type of irregular conditions within buildings that may lead to higher structural damage during a seismic event and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code and consistent with the requirements in the ASCE 7-05.
R301.2.2.3.5.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to clarify that the thinnest connected steel sheets need to be thicker than 33 mils to qualify for the reduction factors and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.

Residential Code Section	Local Condition	Explanation and Findings
R322.1.4.1	Topographical, Geological	The greater Los Angeles region is affected by both natural and man-made topographic conditions, such as, steep hillsides conditions where dry brush may cause brush fires and are fanned by strong concentrated winds caused by steep ravines and valley areas of the hillsides, or when it rains, mudflow or landslides caused by steep bare (no vegetation) slopes. Man-made topography may include very densely populated areas or areas of many high-rise buildings, including but not limited to, Century City, Wilshire Corridor, Westwood or Downtown Los Angeles, where street access for local fire department may be challenging and difficult to navigate or impeded during times of high traffic activity. The proposed modification to require a registered civil engineer to perform design and analysis ensures that a more reliable and better performance is achieved and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alternations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R401.1	Climatic, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood foundation systems as well as limit prescriptive design provisions in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R403.1.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require continuous footings under braced wall lines, require reinforcement in one- and two-family dwelling, and minimum reinforcement in stepped footings will improve performance of buildings or structure during a seismic event and

Residential Code Section	Local Condition	Explanation and Findings
		minimize potential problems or deficiencies and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R403.1.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require continuous footings under braced wall lines, require reinforcement in one- and two-family dwelling, and minimum reinforcement in stepped footings will improve performance of buildings or structure during a seismic event and minimize potential problems or deficiencies and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R403.1.5	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require continuous footings under braced wall lines, require reinforcement in one- and two-family dwelling, and minimum reinforcement in stepped footings will improve performance of buildings or structure during a seismic event and minimize potential problems or deficiencies and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R404.2	Climatic, Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood foundation wall in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or

Residential Code Section	Local Condition	Explanation and Findings
		structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R501.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the equipment weight is intended to reduce injuries, save lives, and minimize structural damages and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R503.2.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require specific detailing at large floor openings is intended to address the poor performance of floor diaphragms with openings and limit or reduce property damages during a seismic event and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Table R602.3(1)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as fasteners used in wood structural panel or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Table R602.3(2)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as

Residential Code Section	Local Condition	Explanation and Findings
		fasteners used in wood structural panel or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Table R602.10.1.2(2)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to increase the length and limit the location where shear walls sheathed with lath, plaster or gypsum board are used will help to ensure that multi-level building will reach it's performance objective in resisting higher levels of seismic loads and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Table R602.10.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail fasteners used in wood structural panel shear walls not substantiated with cyclic testing and requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Table R602.10.3.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance

Residential Code Section	Local Condition	Explanation and Findings
		with the scope and objectives of the International Residential Code.
Figure R602.10.3.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R602.10.3.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to increase the lap splice requirement will improve performance of buildings and structures and is consistent with ACI 318 and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code and ACI 318.
Table R602.10.4.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail fasteners used in wood structural panel shear walls not substantiated with cyclic testing and requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Figure R602.10.4.1.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction

Residential Code Section	Local Condition	Explanation and Findings
		and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R602.10.7.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require all exterior walls and interior braced wall panels in buildings be supported on continuous footings for a complete load path will improve performance of buildings or structure during a seismic event and therefore, need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R606.2.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to not allow the use of unreinforced masonry is intended to prevent non-ductile failures and sudden structural collapses and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R606.12.2.2.3	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to increase reinforcements will ensure that the ductility requirements for buildings in high seismic region meet the intent of the code and limit potential property damages and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R602.3.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but

Residential Code Section	Local Condition	Explanation and Findings
		not limited to the recent 1994 Northridge Earthquake. The proposed modification to eliminate the usage of a single top plate will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
Table R802.5.1(9)	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require connecting members to be of sufficient size will help to prevent splitting of connecting wood members and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R802.8	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to provide lateral bracing at the ends of members will prevent rotation and stabilize the members during construction and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R802.10.2	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require a registered design professional will help ensure the proper design of wood trusses and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R803.2.4	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but

Residential Code Section	Local Condition	Explanation and Findings
		not limited to the recent 1994 Northridge Earthquake. The proposed modification to require specific detailing at large roof openings is intended to address the poor performance of roof diaphragms with openings and limit or reduce property damages during a seismic event and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.
R902.1	Climatic, Topographical	Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another; The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.
R1001.3.1	Geological	The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to anchor masonry chimneys into concrete foundation will reduce injuries, save lives, and minimize structural damages and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.

Green Building Standards Code Section	Local Condition	Explanation and Findings
101.10	Environmental/ Climatic	The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions. The proposed modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the proposed expansion of the Mandatory and Voluntary requirements and therefore need to be incorporated into the code to assure that new residential buildings are designed and constructed in accordance with the scope and objectives of the California Green

Green Building Standards Code Section	Local Condition	Explanation and Findings
		Building Standards Code.
101.12	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code.
202	Environmental/ Climatic/ Administrative	The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions. The proposed modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the proposed expansion of Low Rise Residential Building and therefore need to be incorporated into the code to assure that new residential buildings are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code. This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code.
4.304.1	Environmental/ Climatic	The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where water resource is scarce. The proposed modification to install weather-based or soil moisture-based irrigation controllers for any new residential building subject to Chapter 4, regardless of which entity provides landscaping, will allow greater efficiencies of outdoor water-use and therefore need to be incorporated into the code to assure that new residential buildings are designed and constructed in

Green Building Standards Code Section	Local Condition	Explanation and Findings
		accordance with the scope and objectives of the California Green Building Standards Code.

Energy Code Section	Local Condition	Explanation and Findings
100	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

2009 International Existing Building Code	Local Condition	Explanation and Findings
202	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
Appendix A Chapter A1	Administrative	This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.

SECTION 3: This Resolution shall take effect upon the effective date of Ordinance No. 1176.

/ / /

/ / /

/ / /

/ / /

SECTION 4: The City Clerk of the City of Vernon shall certify to the passage, approval and adoption of this Resolution, and the City Clerk of the City of Vernon shall cause this Resolution and the City Clerk's certification to be entered in the File of Resolutions of the Council of this City.

APPROVED AND ADOPTED this 6th day of December, 2010.

Name: Hilario Gonzales

Title: Mayor / ~~Mayor Pro-Tem~~

ATTEST:

Willard G. Yamaguchi, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, Willard G. Yamaguchi, City Clerk of the City of Vernon, do hereby certify that the foregoing Resolution, being Resolution No. 2010-175, was duly passed, approved and adopted by the City Council of the City of Vernon at a regular meeting of the City Council duly held on Monday, December 6, 2010, and thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 10 day of December, 2010, at Vernon, California.

Willard G. Yamaguchi, City Clerk

(SEAL)

BUILDING STANDARDS COMMISSION
2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959

February 8, 2011

Jed Hulsey, Fire Marshal
Fire Department
City of Vernon
4305 Santa Fe Ave.
Vernon, CA 90058

Dear Mr. Hulsey:

This letter is to acknowledge receipt on December 23, 2010 of the City of Vernon submittal pertaining to Ordinance No. 1177 with findings and is acceptable for filing. Per Health and Safety Code Section 17958.8 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

City of Vernon

FIRE DEPARTMENT
Mark C. Whitworth, Fire Chief
4305 Santa Fe Avenue, Vernon, California 90058
Telephone (323) 583–8811 Fax (323) 826-1407

December 21, 2010

Certified Mail

California Building Standards Commission
2525 Natamos Park Drive, Suite 130
Sacramento, California 95833

Dear California Building Standards Commission,

The City of Vernon recently adopted the 2010 California Fire Code with various amendments.

Enclosed herewith is a certified copy of the City of Vernon's Ordinance No. 1177 adopting the 2010 California Fire Code along with the City Staff Report, dated November 1, 2010, which set forth the findings for each amendment based on climatic, geological, or topographical conditions.

This letter shall serve as the City of Vernon's filing of its modifications to the 2010 California Fire Code along with Vernon's findings determining why each amendment or modification is necessary.

If you have any questions you may contact me at (323) 583-8811, ext. 282.

Very truly yours,

Jed Hulsey
Fire Marshal

CERTIFICATE

STATE OF CALIFORNIA)

) ss

COUNTY OF LOS ANGELES)

I, Willard Yamaguchi, City Clerk of the City of Vernon, County of Los Angeles, State of California, hereby certify that the attached is a full and complete copy of:

ORDINANCE NO. 1177 - An Ordinance of the City Council of the City of Vernon Amending Chapter 7, Fire Regulation, of the Code of the City of Vernon; Adopting by Reference the 2010 California Fire Code Including Amendments, Additions and Deletions, and Repealing All Ordinances and Parts of Ordinances in Conflict Therewith

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official Seal of the City of Vernon, County of Los Angeles, State of California, on this 13 day of December 2010.

SEAL:

Willard G. Yamaguchi
City Clerk

ORDINANCE NO. 1177

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF VERNON AMENDING CHAPTER 7, FIRE REGULATION, OF THE CODE OF THE CITY OF VERNON; ADOPTING BY REFERENCE THE 2010 CALIFORNIA FIRE CODE INCLUDING AMENDMENTS, ADDITIONS AND DELETIONS, AND REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT THEREWITH

WHEREAS, the City of Vernon by Ordinance 1137 adopted the 2007 California Fire Code with certain modifications and changes; and

WHEREAS, Health and Safety Code Section 18938(b) provides the most recent edition of the Uniform Fire Code of the international Conference of Building Officials and the Western Fire Chiefs Association, Inc., as referenced in the California Building Standards Code, shall apply to all occupancies in the state and shall become effective 180 days after publication in the California Building Standards Code by the California Building Standards Commission (hereinafter referred to as the "Commission") or at a later date after publication established by said Commission; and

WHEREAS, the 2010 California Fire Code and Appendices has been published by the Commission and incorporated in the California Code of Regulations Title 24, Part 9; and

WHEREAS, the Commission has determined that the aforesaid code, as published in the California Building Standards Code, shall become effective January 1, 2011; and

WHEREAS, California Health and Safety Code Sections 17958, 17958.5, 17958.7 and 18941.5 allow certain amendments to the code to be made by a local government provided findings of necessity can be made; and

WHEREAS, unless superseded and expressly repealed, references in City forms, documents and regulations to the chapters and sections of the former California Fire Code 2007, shall be construed to apply to the corresponding provisions contained within the California Fire Code 2010. Ordinance 1137 of the City of Vernon and all other ordinances or parts of ordinances in conflict herewith are hereby superseded and expressly repealed; and

WHEREAS, the amendments, deletions and additions to the code set forth in this ordinance are intended as amendments, deletions and additions to the corresponding requirements of the California Building Standards Code, based upon the findings set forth above and outlined in the City Staff Report on Fire Code Adoption dated November 1, 2010; and

WHEREAS, some of the proposed amendments to the code are presently in the Vernon City Code; and

WHEREAS, the City Council of the City of Vernon is authorized, pursuant to Section 50022.2 et seq. of the California Government Code to adopt the above-mentioned code and other uniform codes as the primary code by reference in whole or in part and that the primary code may adopt by reference a secondary code in whole or in part; and

WHEREAS, the Fire Code contains provisions for a Board of Appeals and permits the City Council to determine the membership of the board of appeals; and

WHEREAS, pursuant to Government Code Section 50022.3, the City Council gave a first reading to this Ordinance and the title of said code to be adopted and standards, and a duly noticed public hearing was held on December 6, 2010, for the purpose of considering the adoption.

THE CITY COUNCIL OF THE CITY OF VERNON HEREBY ORDAINS:

SECTION 1: The City Council of the City of Vernon hereby finds and determines that the recitals contain herein and above are true and correct.

SECTION 2: Fire Code

The City of Vernon hereby adopts by reference the 2010 California Fire Code, including secondary codes and standards referred to therein; as amended in Section 3 herein.

SECTION 3: Article II of Chapter 7, Fire Regulations, of the Code of the City of Vernon is hereby amended as follows:

A. Section 7.10 is hereby amended to read as follows:

"Sec. 7. 10 2010 California Fire Code, adopted.

The 2010 California Fire Code, including Appendices B, BB, D, H, and K and standards contained therein, copyrighted by the California Building Standards Commission subject however, to the amendments, additions, and deletions set forth in this article, are hereby adopted by reference as the Fire Code of the City of Vernon."

B. Section 7.12 is hereby amended to read as follows:

"Sec. 7. 12 Amendments, Additions, and Deletions.

The 2010 California Fire Code is hereby amended as follows:

(a) Section 104.7.2 of the 2010 Edition of the California Fire Code is hereby amended to add the following sentence to the end of the paragraph to read as follows:

When there is a fire, explosion, hazardous materials incident, or other potential life or serious property threatening situation, the *fire code official* can request the owner, occupant, or operator to hire a private fire protection or hazardous materials

investigator, acceptable to the *fire code official* and at the expense of the *owner* or operator, to provide a full report of the incident, including, without limitation, such matters as origin, cause, circumstances or proposed solutions to the problem.

(b) Chapter 1, Section 104.12 of the 2010 California Fire Code is hereby added to read as follows:

104.12 False alarms. The *fire code official* is authorized to assess a service charge, as set forth by resolution, against the person owning or responsible for an alarm system when a fire department response occurs as a result of the third false alarm at the same address or location within any twelve month period, and for each subsequent false alarm thereafter, or against any person who intentionally, or in violation of the law reports, or causes to be reported, a false alarm to any department of the City of Vernon that an emergency exists requiring immediate or emergency response by the City of Vernon Fire Department.

(c) Section 104.13 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.13 Vehicle/trailer creating hazard. Whenever it is determined by a *fire code official* or his representative that an unattended or attended vehicle/trailer parked or stopped upon any public street, road, alley, right-of-way, or upon private property, creates an immediate danger or fire hazard to itself, other vehicles, persons, or surrounding property, the fire official shall request the local law enforcement agency to cause the removal of the vehicle/trailer to a safe location, and the local law enforcement agency shall cause the removal at the expense of the registered owner of the vehicle/trailer, and a notice of the

removal shall be given to the registered owner as soon as feasible.

(d) Section 104.14 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.14 Outside obstructions. No person shall park or place any material or vehicle in any established exit way, driveway, gateway, or alleyway between buildings that would hamper the ingress of fire equipment in case of a fire, explosion, hazardous materials incident, or other potential life or serious property threatening situation. When in the opinion of the fire code official or his representative, any driveway, gateway, or alleyway between buildings is so obstructed by objects, materials, or vehicles as to impede the ingress or egress of said way, it shall be removed immediately upon order of the *fire code official* or his representative. When such obstruction is a vehicle, it may be removed or impounded at the owner's expense and as prescribed by law.

(e) Section 104.15 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.15 Fire safety officer. When in the opinion of the fire chief, it is necessary for the preservation of life and property, due to the hazardous nature of an event, production, operation, or function, the fire chief shall require the owner, agent, production company, or lessee to employ or cause the employment of one or more fire department safety officers to be on duty at such place during such activity.

(f) Section 105.1.4 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.1.4 Investigation fees; work without a permit. Whenever any work, operation or action for which a permit is required by this code has been commenced without first obtaining said permit, an investigation shall be made before a permit may be issued for such work. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then subsequently issued. The investigation fee shall be double the amount of the permit fee set forth in the fee schedule.

(g) Section 105.1.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

105.1.1 Permits required. Permits required by this code shall be obtained from the fire code official. Issued permits shall be conspicuously displayed on the premises designated therein at all times and shall be readily available for inspection by the *fire code official*. Permit fees shall be as set forth in a fee schedule adopted by resolution by the City Council.

(h) Section 105.6.25 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

105.6.25 Lumber yards, woodworking plants, and pallet storage. A permit is required for storage of processing of lumber exceeding 100,000 board feet (8,333 ft3) (236 m3), or outside pallet storage in excess of 240 units and inside storage in excess of 64 units.

(i) Section 105.6.48 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.6.48 General use permit. In addition to the permits required by Section 105.6, a general use permit shall be obtained from the fire code official for any activity or operation not specifically addressed in this article, which in the judgment of the *fire code*

official, is possible or likely to produce conditions hazardous to life or property.

(j) Section 105.7.15 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.7.15 High-piled storage. A construction permit is required for installation or modification of high-piled combustible storage in racks. When using any building or portion thereof exceeding twenty-five hundred (2,500) square feet for high-piled combustible storage in racks, a floor plan showing the dimensions and location of the rack system shall be submitted with the application for such permits.

(k) Chapter 1, Section 105.7.16 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.7.16 Roof obstructions. A construction permit is required for installation of a roof photovoltaic system when constructed on a building's roof that covers more than 50% or 10,000 square feet of the total surface area whichever is less.

Exceptions:

1. Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.
2. Non-habitable structures including but not limited to shade structures, private carports, solar trellises, etc.

(l) Section 105.8 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.8 Responsibility of permittee. Fire permits shall be presumed to incorporate the provision that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work

in accordance with the approved plans and with all requirements of this code and any other laws or regulations applicable thereto, whether specified or not. No approval shall relieve or exonerate any person from the responsibility of complying with the provisions and intent of this code.

(m) Section 108.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

108.1 Board of appeals established. The city council shall act as a board of appeals in making a correct determination of any appeal arising from actions of the fire code official. The *fire code official* shall be an ex officio member of said board but shall not vote on any matter before the board. Appeals shall be made in writing and the appellant may appear in person before the city council or be represented by an attorney and may introduce evidence to support his claim. Appeals shall be heard at reasonable times at the convenience of the city council but not later than thirty days after the receipt thereof.

(n) Section 113.6 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.6 Fees for services, establishment; review. The *fire code official* is authorized to collect fees for services established or modified by resolution of the City Council. The *fire code official* shall review fees charged for such services at least annually and shall, with approval of the City Administrator, recommend changes to the council when costs for such services make it appropriate.

(o) Section 113.7 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.7 Operational permit fees. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all operational permits required pursuant to the provisions of this code.

(p) Section 113.8 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.8 Construction permit fees. Construction permit fees shall be paid at the time of the permit issuance. In addition to the permit fee, the applicant shall pay a plan check fee. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all construction permits required pursuant to the provisions of this code.

(q) Section 113.9 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.9 Re-inspection fee. Whenever an inspection is scheduled under Section 105.2.2 and the permittee is not ready for inspection and does not inform the fire code official or his representative at least two hours prior to the scheduled inspection, a re-inspection fee may be assessed.

(r) Section 114 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

SECTION 114

RESPONSIBILITY

114.1 Responsibility for costs. Persons who personally or through another willingly, negligently, or in violation of law set a fire, allow a fire to be set, allow a fire kindled or attended by them to escape from their control, allow any hazardous material to escape from their control, neglect to properly comply with any

written notice of the fire chief, or willfully or negligently allow the continuation of a violation of this code and amendments thereto are liable for the expenses of fighting the fire, for the expenses of any investigation, or for the expenses incurred during a hazardous materials incident. Such expenses shall be a charge against that person. Such charge shall constitute a debt of such person, and is collectible by the City in the same manner as in the case of an obligation under a contract, expressed or implied and a lien may be attached to the involved property.

114.2 Reporting injuries caused by fires. Any person, firm, corporation, or agency that maintains a hospital, pharmacy, or any other medical or first aid service shall immediately report to the fire chief any person suffering from any fire-related injury. The report shall be made both by telephone and in writing, and shall include the name and address of the injured person, the person's whereabouts, and the character and extent of the person's injuries.

(s) Chapter 2, The definitions of "awning," "false alarm," "fire chief," "fire code official," "fire safety officer," and "safety container" are hereby added to Section 202 of Chapter 2 of the 2010 Edition of the California Fire Code in alphabetical order to read as follows:

AWNING. An architectural projection that provides weather protection, identity, or decoration and is wholly supported by the building to which it is attached. An *awning* is compromised of a lightweight frame structure over which a covering is attached.

FALSE ALARM. The willful and knowing initiation or transmission of a signal, message or other notification of an event of fire when

no such danger exists, or the activation of any fire alarm system due to malfunction, mechanical or electrical defect, improper operation or procedure by any person, or a false oral or written report to any department of the City of Vernon that an emergency exists requiring immediate or emergency response by the Vernon Fire Department.

FIRE CHIEF. The chief officer of the fire department serving the jurisdiction

FIRE CODE OFFICIAL. The fire chief or other member of the fire service appointed by the fire chief charged with the administration and enforcement of this code.

FIRE SAFETY OFFICER. A sworn member of the fire department serving the jurisdiction assigned to preserve life and property at a location, due to the hazardous nature of the activity of an event, production, operation, or function.

SAFETY CONTAINER. An approved container of not over 5 gallons capacity, having a self-closing lid and spout cover.

(t) Section 304.1.1.1 of the 2010 Edition of the California Fire Code is hereby added to read as follows:

304.1.1.1 Waste material near photovoltaic array system. Accumulation of waste material shall not be permitted underneath nor within 10 feet from a mounted photovoltaic array system.

(u) Section 311.2.2 Exceptions 1 and 2, of the 2010 Edition of the California Fire Code is hereby deleted.

(v) Section 312.2 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

312.2 Guard posts. Guard posts shall comply with all of the following requirements:

1. Constructed of steel not less than 8 inches (204 mm) in diameter and concrete filled.
2. Spaced no more than 4 feet (1219 mm) between posts on center.
3. Set not less than 4 feet (1219 mm) deep in a concrete footing of not less than an 18 inch (457.2 mm) diameter.
4. Set with the top of the posts not less than 4 feet (1219 mm) above ground.
5. Located not less than 3 feet (914 mm) from the protected object.
6. Posts shall be painted safety yellow

(w) Section 315.3.3 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.3 Pallet storage height and total accumulation for storage. Pallet storage in the open shall not exceed 15 feet (4,572 mm) in height and a total aggregate content not exceeding 6,750 cubic feet. Aisle separation of 15 feet (4,572 mm) is required before the next pile or stack is created. Storage of pallets in excess of 240 pallets requires a permit per Sec. 105.6.25.

(x) Section 315.3.4 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.4 Pallets. All pallets must be stacked so that there is visibility through the stacks to the adjacent aisles, or so organized to assure that no temporary living facilities or places of refuge are hidden from view. Pallets shall be stacked or piled with due regard to the stability of piles, and in no case higher than 15 feet (4,572 mm).

(y) Chapter 3, Section 315.3.4.1 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.4.1 Clearance around pallets. Aisles between and around open pallet stacks shall be at least 15 feet (4,572 mm) in width and maintained free from accumulated rubbish, equipment, or other articles or materials.

(z) Section 315.3.4.2 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.4.2 Pallet storage next to structure/awning. When pallets are stored near a structure/awning, the height of the storage shall be restricted to no higher than the structure/awning and cannot exceed the height of the structure/awning, or 15 feet (4,572 mm), whichever is less.

(aa) Section 503.2.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

503.2.1. Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 27 feet (8,229 mm) and an unobstructed vertical clearance of not less than 15 feet (4,572 mm).

(bb) Section 504.4 is hereby added to Chapter 5 of the 2010 Edition of the California Fire Code is hereby added to read as follows:

504.4. Roof top access and safety. Roof top solar photovoltaic systems shall be in accordance with Appendix K.

(cc) Section 507.5 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

507.5. Fire Hydrant Systems. When any portion of the facility or building protected is in excess of 150 feet from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the chief.

(dd) Section 507.5.5 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

Sec. 507.5.5. Clear space around hydrants. Clear space of 31 feet (9,448.8 mm) in front of, 4 feet (1,219 mm) in rear of and 10 feet (3,048 mm) on both sides shall be maintained around each onsite hydrant.

(ee) Section 901.4.5 is hereby added to Chapter 9 of the 2010 Edition of the California Fire Code to read as follows:

901.4.5 Protection of fire protection systems and equipment. Fire protection systems and equipment subject to possible vehicular damage shall be adequately protected with guard posts in accordance with Section 312 Vehicle Impact Protection, and modifications adopted under this code.

(ff) Section 1504.2 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

1504.2 Location of spray-finishing operations. All inside or outside spray-finishing operations shall be conducted in an approved spray booth constructed in accordance with Section 1504.

(gg) Section 3301.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

3301.1. Prohibited and limited acts. Explosive materials shall not be manufactured, tested or stored within the limits of the City of Vernon.

(hh) Section 3404.2.9.6.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

3404.2.9.6.1. Locations where above-ground tanks are prohibited. Storage of Class I and Class II liquids in above ground tanks outside of buildings within the City of Vernon and in areas 1,000 feet (304,800 mm) or more from the outside boundary of a kindergarten through 12th grade public school shall be in approved containers not exceeding 10,000 gallons in size. In areas of a lot or parcel within 1,000 feet (304,800 mm) of the outside boundary of said school, the only Class I or Class II liquids approved for storage in above ground tanks is diesel fuel which shall be in approved containers and shall be limited to either two (2) 1,000 gallon tanks or one (1) 2,000 gallon tank.

(ii) Section 3801.4 is hereby added to Chapter 38 of the 2010 Edition of the California Fire Code to read as follows:

3801.4 Inside storage or use. No LP-gases of any type or mixture shall be permitted in any occupancy either for sale, use or storage without approval of the *fire code official*.

(jj) Section 3803.2.2.1 is hereby added to Chapter 38 of the 2010 Edition of the California Fire Code to read as follows:

Sec. 3801.2.2.1 Portable cylinders on motorized equipment. The use of portable cylinders of LP-gas as motorized equipment fuel in occupancies is limited as follows: LP-gas fuel tanks on motorized equipment are limited to two per vehicle with a combined capacity not to exceed 50 pounds. Refilling of tanks shall not be permitted

within the occupancy and shall be permitted only in approved locations determined by the *fire code official*.

(kk) Section 3804.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

3804.1. Storage of liquefied petroleum gases. Storage and transportation of LP-gas and the installation and maintenance of pertinent equipment shall be in accordance with NFPA 58 and shall be subject to the approval of the fire code official. Storage is permitted within the limits of the City of Vernon except within 1,000 (304,800 mm) feet of a kindergarten through 12th grade public school.

Exception: Storage of LP-gas not exceeding 2,000 gallons per parcel in approved containers is permitted in all areas within the limits of the City of Vernon.

(ll) Section 3804.3.2 is hereby added to Chapter 38 of the 2010 Edition of the California Fire Code to read as follows:

3804.3.2 Tank orientation. Unless special protection is provided and approved by the fire code official, containers of LP-gas shall be oriented so that their longitudinal axes do not point toward other LP-gas containers, vital process equipment, control rooms, loading stations, flammable liquid storage tanks or required fire access roads.

(mm) Appendix C of the 2010 Edition of the California Fire Code is hereby deleted.

(nn) Section D103.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

D103.1. Access road. The dimension of the fire access road turnarounds shall be in accordance with City standards.

(oo) Appendix K is hereby added to the 2010 Edition of the California Fire Code to read as follows:

APPENDIX K

ROOF SOLAR PHOTOVOLTAIC SYSTEMS

SECTION K101

SCOPE

K101.1 Scope. This appendix shall apply to the design, construction, and installation of all solar photovoltaic systems when located on the roof of a building.

Exception:

1. Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.
2. Non-habitable structures include, but are not limited to, shade structures, private carports, solar trellises, etc.

K101.2 Permits. The fire code official shall review and approve the installation of roof solar photovoltaic systems on buildings that obstruct more than 50% or 10,000 square feet of the total roof surface area prior to the building code official issuing a permit for the installation for such roof obstructions. See section 105.7 for required construction permits.

K101.3 Required construction document information. All roof top installations submitted for approval shall include the following:

1. Site plan to scale depicting the following:
    a. Dimensions of the building
    b. Location of all structures on site.
    c. Street address of building.
    d. Access from street to building.
    e. Location of roof top solar arrays, gardens, or landscaped areas.
    f. Location of disconnects.
    g. Location of signage.
    h. Location of required access paths.
    i. Northern reference
2. Roof and Elevation plan showing the following:
    a. Array or landscape placement.
    b. Roof ridge lines.
    c. Eave lines.
    d. Equipment on roof.
    e. Vents, skylights, roof hatches, etc.
3. Location and wording of all markings, labels and warning signs.
4. Building photographs that may be useful in the evaluation of the garden, landscaping, or array placement.

SECTION K102

DEFINITIONS

K102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

ACCESS PATHWAY. A required walking pathway that is designed to provide emergency access to firefighters.

ARRAY. An uninterrupted section of solar photovoltaic panels or modules or a group of interconnected sub-arrays.

GRID. The electrical system that is on the service side of the electric meter. Designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

INVERTER. A device used to convert direct current (DC) electricity from the solar system to alternating current (AC) electricity for use in the building's electrical system or the grid.

ROOF ACCESS POINT. An area that does not require ladders to be placed over building openings (i.e., windows, vents, or doors), and that are located at structurally strong points of building construction and in locations where ladders will not be obstructed by tree limbs, wires, signs or other overhead obstructions.

SOLAR PHOTOVOLTAIC SYSTEM. A system of component parts that receives sunlight and converts it into electricity.

SUB-ARRAY. Uninterrupted sections of solar photovoltaic panels interconnected into an array.

TRAVEL DISTANCE. The walking distance between two points.

VENTING CUT OUT. Section(s) in an array that are designed to accommodate emergency ventilating procedures.

SECTION K103

ROOF SOLAR PHOTOVOLTAIC SYSTEMS

K103.1. Solar photovoltaic systems. The requirements of section K103 applies to all solar photovoltaic systems installed on the roof of buildings regardless of system size or if used for residential and commercial purposes. Roof solar photovoltaic systems shall be designed, constructed and installed in accordance with sections K103.2 through K103.5.3.

K103.2 Marking. Photovoltaic systems shall be marked. Marking is needed to provide emergency responders with appropriate warning and guidance with respect to isolating the solar electric system. This can facilitate identifying energized electrical lines that connect the solar panels to the inverter, as these should not be cut when venting for smoke removal. Materials used for marking shall be weather resistant. UL 969 shall be used as a standard for weather rating (UL listing of markings is not required).

K103.2.1 Building's electrical system main service disconnect marking. The building's main electrical service disconnect shall be marked.

K103.2.1.1 Single and two dwelling unit residential buildings. The marking shall be placed within the main service disconnect.

Exception: If the main service disconnect is operable with the service panel closed, then the marking shall be placed on the outside cover.

K103.2.1.2 Commercial and industrial buildings. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the lever is operated.

K103.2.1.3 Marking content and format. Marking content and format shall be as follows.

1. Marking content: "CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

K103.2.2 Photovoltaic circuits marking. Photovoltaic circuit marking is required on all interior and exterior photovoltaic DC circuit conduit, raceways, enclosures, cable assemblies and junction boxes to alert firefighters to avoid cutting them. Marking shall be placed every 10 feet (3,048 mm), at turns, and above and/or below penetrations, and at all photovoltaic circuit combiner and junction boxes.

K103.2.2.1 Marking content and format. Marking content and format shall be as follows.

1. Marking content: "CAUTION: SOLAR CIRCUIT"
2. Red background
3. White lettering
4. Minimum 3/8" letter height

5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

K103.2.3 Inverter marking. No markings are required for the inverter unless the inerter is used also as a required remote electrical disconnect.

K103.2.4 Remote electrical disconnect marking. Marking shall be located immediately next to the remote electrical disconnect control as follows:

1. Marking content: "CAUTION: SOLAR CIRCUIT DISCONNECT"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

K103.3 Remote electrical disconnect. Photovoltaic circuits shall be equipped with a means for remote electrical disconnect located downstream from the photovoltaic array at the point where the photovoltaic circuit first enters the structure, or at another approved location. The manual control to operate the remote electrical disconnect shall be located within five feet of the building's main

electrical panel. The remote electrical disconnect shall be listed and meet the requirements of the California Electrical Code.

Exceptions:

1. Photovoltaic circuits contained in rigid or electrical metallic tubing running between the array combiner box and the main electrical panel which are entirely exterior to the building need not be equipped with a means of remote electrical disconnect other than the disconnects intrinsic to the system.
2. Photovoltaic circuits contained in rigid or electrical metallic tubing running between the array combiner box and the main electrical panel that run through the interior of the building when installed a minimum of 18" below the roof assembly when measured parallel to the surface of the roof.
3. The photovoltaic system inverter may be used for remote electrical disconnect when the inverter is located immediately upstream of the roof penetration where the circuit enters the structure.

K103.4 Access pathways and emergency ventilation. Access and spacing requirements shall be provided in order to ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut out areas, and to provide emergency egress from the roof. For the purpose of access pathways and emergency ventilation, designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

K103.4.1 Alternative materials and methods. Alternative materials and methods per Section 104.9 for access pathways or venting cut outs may be requested for approval by the fire code official due to:

1. Unique site specific limitations
2. Alternative access opportunities (as from adjoining roofs)
3. Ground level access to the roof area in question
4. Other adequate venting cut out opportunities when approved by the fire code official.
5. Adequate venting cut out areas afforded by panel set back from other roof top equipment (for example: shading or structural constraints may leave significant areas open for ventilation near HVAC equipment.)
6. Automatic ventilation device.
7. New technology, methods, or other innovations that ensure adequate fire department access pathways and ventilation opportunities.

K103.4.2 Single and two dwelling unit residential buildings access pathways and venting cut outs. Access pathways and venting cut outs for single and two dwelling unit residential buildings shall be provided as per Section K103.4.2.1 through K103.4.2.4.

K103.4.2.1 Hip roof layout. Solar modules shall be located in a manner that provides one three (3') foot wide clear access pathway from the eave to the ridge on each roof slope where solar modules are located. The access pathway shall be located at a structurally strong location on the building, such as a bearing wall.

K103.4.2.2 Single roof ridge. Solar modules shall be located in a manner that provides two three (3') foot wide access pathways from the eave to the ridge on each roof slope where solar modules are located.

K103.4.2.3 Roof hips and valleys. Solar modules shall be located no closer than one and one half (1.5') feet to a hip or a valley if modules are to be placed on both sides of a hip or valley. If the solar modules are to be located on only one side of a hip or valley, that is of equal length then the panels may be placed directly adjacent to the hip or valley.

K103.4.2.4 Venting cut out areas. Solar modules shall be located no higher than three (3') feet below the ridge.

K103.4.3 Commercial and industrial buildings and multi-residential buildings containing three or more dwelling units required access pathways and venting cut outs. Access pathways and venting cut outs for commercial and industrial buildings and multi-residential buildings containing three or more dwelling unit s shall be provided as accordance with Section K103.4.3.1 through K103.4.3.2.6.

Exception: If the *fire code official* determines that the roof configuration is similar to that found in single and two dwelling unit residential buildings, the design requirements found in Section K103.4.2 may be utilized.

K103.4.3.1 Array dimension. Arrays shall be no greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in distance in either axis.

K103.4.3.2 Access pathways. Access pathways shall be established in the design of the photovoltaic system installation. Access pathways shall be provided in accordance with Section K103.4.3.2.1 through K103.4.3.2.5.

K103.4.3.2.1 Access pathways perimeter of the roof. There shall be a minimum six (6') foot (1,828 mm) wide clear perimeter around the edges of the roof.

Exception: If either axis of the building is 250 feet (976,200 mm) or less, there shall be a minimum four (4') feet (1,219 mm) wide clear perimeter around the edges of the roof.

K103.4.3.2.2 Access pathway location. The center line axis of access pathways shall run on structural members or over the next closest structural member nearest to the center lines of the roof.

K103.4.3.2.3 Access pathway center line. The center line axis of access pathways shall be provided in both axis of the roof.

K103.4.3.2.4 Access pathway alignment. Access pathways shall be in a straight line and provide not less than four (4') feet (1,219 mm) clear to skylights, ventilation hatches or roof standpipes.

K103.4.3.2.5 Access pathway around roof access hatches. Access pathways shall provide not less than four (4') feet (1,219 mm) of clearance around roof access hatch with at least one not less than four (4') feet (1,219 mm) clear pathway to parapet or roof edge.

K103.4.3.2.6 Venting cut out areas. Venting cut outs between array sections shall be either:

1. An access pathway eight (8') feet (2,438 mm) or greater in width.
2. An access pathway that is four (4') feet (1,219 mm) or greater in width and bordering on existing roof skylights or ventilation hatches.

3.An access pathway that is four (4') feet (1,219 mm) or greater in width and bordering four (4') feet (1,219 mm) by eight (8') feet (2,438 mm) venting cut outs every twenty (20') feet (6,096 mm) on alternating sides of the access pathway.

K103.5 Location of conductors. Conduit, wiring systems and wiring raceways for photovoltaic circuits shall be provided in accordance with Section K103.5.1 through K103.5.3.

K103.5.1 Conductor location. Conduit, wiring systems, and wiring raceways shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize venting cut out areas.

K103.5.2 Conductors between sub arrays and DC combiner boxes. Conduit runs between sub arrays and to DC combiner boxes shall use the design that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes are to be located such that conduit runs are minimized in the pathways between arrays.

K103.5.3 Conduit within enclosed spaces. To limit the hazard of cutting live conduit in venting operations, DC wiring shall be run in metallic conduit or raceways when located within enclosed spaces in a building and shall be run, to the maximum extent possible, along the bottom of load-bearing members.

SECTION 4: Ordinances Repealed.

Any ordinance, part of an ordinance, or code section in conflict with this Ordinance is hereby repealed.

SECTION 5: Severability.

If any section, subsection, sentence, clause, or phrase or word of this ordinance is for any reason held to be void or unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance; it being the intention of the City Council of the City of Vernon to adopt and pass this ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that one or more of the sections, subsections, clauses, sentences or phrases thereof may be declared void or unconstitutional.

SECTION 6: Copies on File with City Clerk.

Pursuant to Government Code Section 50022.6, one certified copy the 2010 California Fire Code shall be made available for public inspection in the office of the City Clerk.

SECTION 7: Effective Date.

This ordinance shall be in full force and effect on January 1, 2011.

APPROVED AND ADOPTED this 6th day of December, 2010.

Name: Hilario Gonzales

Title: Mayor ~~/ Mayor Pro Tem~~

ATTEST:

WILLARD G. YAMAGUCHI, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, WILLARD G. YAMAGUCHI, City Clerk of the City of Vernon, do hereby certify that the foregoing Ordinance, being Ordinance No. 1177, was duly and regularly introduced at a meeting of the City Council of the City of Vernon, held in the City of Vernon on Monday, November 1, 2010, and thereafter adopted at a meeting of said City Council held on Monday, December 6, 2010, by the following vote:

AYES:	Councilmembers:	Mayor Gonzales, McCormick, Davis, Maisano, Newmire
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	None

And thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 10 day of December, 2010, at Vernon, California.

WILLARD G. YAMAGUCHI
City Clerk

(SEAL)

CERTIFICATE

STATE OF CALIFORNIA)

) ss

COUNTY OF LOS ANGELES)

I, Willard Yamaguchi, City Clerk of the City of Vernon, County of Los Angeles, State of California, hereby certify that the attached is a full and complete copy of:

> **Resolution No. 2010-176** - A Resolution of the City Council of the City of Vernon Making Express Findings and Determinations that Modifications to the 2010 Fire Code are Reasonably Necessary Because of Local Climatic, Geological or Topographical Conditions

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official Seal of the City of Vernon, County of Los Angeles, State of California, on this 15 day of December 2010.

SEAL:

Willard G. Yamaguchi
City Clerk

RESOLUTION NO. 2010-176

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VERNON MAKING EXPRESS FINDINGS AND DETERMINATIONS THAT MODIFICATIONS TO THE 2010 CALIFORNIA FIRE CODE ARE REASONABLY NECESSARY BECAUSE OF LOCAL CLIMATIC, GEOLOGICAL OR TOPOGRAPHICAL CONDITIONS

WHEREAS, Health and Safety Code Section 17958 provides that the City of Vernon may adopt ordinances and regulations imposing the same or modified requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17722; and

WHEREAS, the State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Building Standards Administrative Code, the California Building Code, the California Residential Code, the California Electrical Code, the California Mechanical Code, the California Plumbing Code, the California Energy Code, the California Historical Building Code, the California Fire Code, the California Existing Building Code, the California Green Building Standards Code and the California Reference Standards Code (hereinafter referred to collectively as "Codes"); and

WHEREAS, Health and Safety Code Section 17598.7(a) permits the City to make modifications or changes to the Codes, which are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the Codes, shall make an express finding that such changes or modifications are reasonably necessary because of local climatic, geographic or

topographic conditions.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF VERNON DOES HEREBY FIND, DETERMINE AND RESOLVE AS FOLLOWS:

SECTION 1: The Fire Department has recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the 2010 Edition of the California Fire Code, are reasonably necessary due to local conditions in the City of Vernon as described below:

A. Administrative Amendments. These amendments are necessary for administrative clarification and do not modify a Building Standard pursuant to Sections 17958, 17958.5, and 17958.7 of the California Health and Safety Code. These amendments establish administrative standards for the effective enforcement of building standards throughout the City of Vernon.

B. Amendments Justified on the Basis of a Local Climatic Condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City of Vernon. The hot, dry weather in combination with Santa Ana winds results in extreme fire conditions for the community. The aforementioned conditions combined with the geological characteristics of the county and near the City create hazardous conditions for which departure from the California Building Standards Code is required.

C. Amendments justified on the Basis of Local Geological Condition. The City of Vernon is subject to earthquake hazards caused by its location in an active seismic activity area. Faults which potentially cause seismic activity in the City include the Whittier Fault to the east, the Raymond Fault to the north, and the Newport-Inglewood Fault to the west. Said faults are generally considered major

Southern California earthquake faults which may experience rupture at any time. Thus, because the City is within seismic area which includes earthquake faults within the County of Los Angeles and near the City, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

D. Amendments Justified on the Basis of Local Topographical Condition. The of the City of Vernon is coupled with the density of buildings, limited setbacks, narrow access to buildings, narrow streets potentially create a problem for governmental agencies to respond to emergency conditions. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The heavy rains tend to over-saturate the soil for a short time period during the year, having a detrimental effect on in-ground structures affected by varying moisture conditions.

Section 2: Amendments to the 2010 Edition of the California Fire Code, as contained in City of Vernon Ordinance No. 1177, are found reasonably necessary based on the climatic, geological and/or topographical conditions cited above in Paragraphs B, C and D of Section 1 of this Resolution and are listed as follows:

Fire Code Section	**Justification**	**Rationale**
104.7.2	Administrative	This amendment provides investigation assistance when the fire code official requires reinforcement and validation of origin, cause, and circumstances of an emergency event or explanations to the threat or risk of an identified problem.
104.12	Administrative	Fire apparatus and personnel respond to

Fire Code Section	Justification	Rationale
		numerous false alarm responses due to owner/occupants not maintaining their fire alarm and/or fire protection systems. The time taken to respond to these non-emergency incidents can limit the ability of emergency responders to be available for response to legitimate emergencies and calls for assistance. The City should have the ability to collect for this additional work with the rationale that the owner or responsible party will maintain their fire alarm and/or fire protection systems if a penalty is incurred for the false alarm.
104.13	Administrative, Climatic, Geological, Topographical	At times, vehicles are left positioned on thoroughfare locations that restrict and block access to emergency vehicles. This act can impede the ability of emergency responders to arrive, investigate, and function at the scene of the incident on a timely basis, potentially causing more harm, damage, and property loss. Operators have the responsibility to position their vehicles in locations that will not hamper emergency responders from doing they're job.
104.14	Climatic, Geological, Topographical	At times, stock, product, materials, and vehicles are left at sites that restrict and block access to emergency vehicles or obstruct ingress/egress to emergency personnel. This act can impede the ability of emergency responders to safety and quickly function at the scene of the incident, potentially causing more harm, damage, and property loss. Owners, occupants, and operators have the responsibility to position their product, materials, and vehicles in locations that will not hamper emergency responders from doing they're job.
104.15	Administrative	Occasionally scheduled activities endorsed by property owners, their agents, and production companies occur at locations and facilities in the City that require guidance and service in the

Fire Code Section	Justification	Rationale
		preservation of life and property. Approving fire safety personnel, trained to recognize and eliminate unsafe acts, prevent fires, and other hazardous actions will save life and property in the City.
105.1.4	Administrative	The City Council shall set forth the permit and plan review fees by resolution in order to ensure sufficient funds are collected for services provided. From time to time occupants construct and/or modify the structure, building, facility or operation without providing plans or obtaining a permit for the changes. The City should have the ability to collect for this investigational work.
105.1.1	Administrative	Certain activities historically have been hazardous at work locations. Operational permits annually regulate these activities to reduce or eliminate the risks, whereas construction permits direct the building or installation of specific operational systems or functions. Permits must be posted conspicuously, either permanently or for a limited time, for view by inspectors.
105.6.25	Climatic, Geological, Topographical	Large amounts of loose wood products are a fire hazard. Currently, this permit does not incorporate pallet storage. This addition will standardize storage practices at facilities that store substantial amounts of pallets in the City.
105.6.48	Climatic, Geological, Topographical	Currently, some activities or operations occur at locations that increase the potential for loss of life or property. This permit addresses these activities and operations by regulating safer practices at facilities in the City.
105.7.15	Administrative, Climatic, Geological, Topographical	Currently, this permit is not listed in the CFC. The addition of this construction permit will standardize the installation of high-piled combustible storage in racks along with the requirement of providing a floor plan.

Fire Code Section	Justification	Rationale
		The addition of this requirement will direct safer storage within buildings and facilities.
105.7.11.1	Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a building during a fire. In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building. In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil,

Fire Code Section	Justification	Rationale
		and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction.
105.8	Administrative	The permittee and/or its agents shall be held responsible to ensure its work complies with the code and with other regulations or laws adopted by the State and this responsibility should not be shifted in any way to the City or its employees.
108.1	Administrative	The city council shall act as a board of appeals making a correct determination of any appeal of orders, decisions or determinations made by the fire code official relative to the application and interpretation of the California Fire Code. The fire code official shall be an ex officio member of said board to assist in the interpretation of the code, but shall have not vote on any matter before the board.
113.6	Administrative	This amendment provides the Fire Department with administrative provisions for the establishment and review of fees for services.
113.7	Administrative	Certain business operations create additional potential hazards at the workplace. These hazards are regulated by the fire code, and may require a specialized inspection. The City Council shall set forth the permit fees by resolution in order to ensure sufficient funds are collected for services provided. The City should have the ability to collect for this additional work.
113.8	Administrative	The City Council shall set forth the permit and plan review fees by resolution in order to ensure sufficient funds are collected for services provided. From time to time permittees call for an

Fire Code Section	Justification	Rationale
		inspection when the work has not been completed or is not performed in conformance with the plans causing the City to re-inspect the work. The City should have the ability to collect for this additional work.
113.9	Administrative	From time to time permittees call for an inspection when the work has not been completed or is not performed in conformance with the plans causing the City to re-inspect the work. The City should have the ability to collect for this additional work.
114	Administrative, Climatic, Geological, Topographical	The owner, occupant and/or its agents shall be held responsible to ensure that safety and preventative measures are provided for employees, visitors, and emergency responders by maintaining fire prevention within its buildings, facilities, storage and processes. If the owner or occupant does not comply with the established codes and regulations, fees and/or penalties can be imposed. The City should have the ability to recover the costs of these expenses from the violator(s).
202	Administrative	Definitions for fire chief and fire code official are imprecise. These modifications are specific to Vernon Fire Department. The definitions for awning, false alarm, fire safety officer and safety container were not included in section 2 of the CFC and are referenced in the adoptions, so by including them, the terms are identified.
304.1.1.1	Administrative, Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps

Fire Code Section	Justification	Rationale
		restore and maintain a tenable interior environment in a building during a fire. In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building. In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction.
311.2.2	Climatic, Geological, Topographical	Vacant premises that have fire protection systems installed must be required to maintain the systems to function in case of a fire.
312.2	Administrative, Topographical	The City of Vernon is an industrial city, with large trucks, tractor-trailers, and

Fire Code Section	**Justification**	**Rationale**
		heavy equipment moving on public and private roadways and property. Occasionally large vehicles strike protective guard posts bending, breaking and pushing them against fire protection equipment, hazardous materials containers, and other specialized appliances the posts are designed to protect. This code modification increases the requirements of the guard posts, thus providing better protection of the equipment.
315.3.3	Climatic, Geological, Topographical	Large amounts of loose wood products are a fire hazard. This addition will standardize storage practices at facilities that store substantial amounts of pallets in the City, and provide the fire department avenues to access the product piles if a fire occurs.
315.3.4	Climatic, Geological, Topographical	Significant volume pallet storage increases the potential for loss due to the increased fire load. Keeping pallet stacks organized and orderly will assist in limiting the potential for pallets falling over and restricting fire spread.
315.3.4.1	Climatic, Geological, Topographical	Combustible rubbish tends to accumulate around pallet stacks. These light fuels allow combustion to occur more readily if not cleaned up. Large amounts of pallet materials add to the fire hazard. This addition will standardize storage practices at facilities that stockpile substantial amounts of pallets in the City, and provide the fire department avenues to access the product piles if a fire occurs.
315.3.4.2	Climatic, Geological, Topographical	Climatic, geologic, and topographic events or conditions may cause pallets to fall onto a structure/awing potentially causing serious injury or death & extensive property damage.
503.2.1	Administrative, Topographical	The Fire Department emergency vehicles are very large and difficult to maneuver when restrictions are placed on them during incidents. Additionally, some

Fire Code Section	Justification	Rationale
		vehicles have outrigger supports that extend the footprint of the vehicle beyond the prescribed access road dimensions in the current fire code. This code modification increases the requirements of the fire apparatus access roads, thus providing sufficient space for movement and placement of emergency equipment. This change was previously adopted and included in Ordinance 1137.
504.4	Administrative, Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a building during a fire. In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building. In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a

Fire Code Section	Justification	Rationale
		roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction.
507.5	Administrative, Climatic, Geological, Topographical	The City of Vernon has established standards for the spacing of fire hydrants. This change was previously adopted and included in Ordinance 1137.
507.5.5	Administrative, Climatic, Geological, Topographical	The City of Vernon has established standards for regulating the clear space around fire hydrants. This spacing standard assists in providing fire department apparatus direct access to fire hydrants. This change was previously adopted and included in Ordinance 1137.
901.4.5	Administrative, Topographical	The City of Vernon is an industrial city, with large trucks, tractor-trailers, and heavy equipment moving on public and private roadways and property. Occasionally large vehicles strike protective guard posts bending, breaking and pushing them against fire protection equipment, hazardous materials containers, and other specialized appliances the posts are designed to protect. This code modification increases the requirements of the guard posts, thus providing better protection of the equipment.
1504.2	Climatic, Geological, Topographical	This code was amended to include regulations for spray finishing operations that may occur outside. This change was previously adopted and included in Ordinance 1137.

Fire Code Section	Justification	Rationale
3301.1	Climatic, Geological, Topographical	Allowing explosive materials in or near densely positioned structures along with a sizeable general population creates an untenable potential for the City and its business activities.
3404.2.9.6.1	Climatic, Geological, Topographical	This code was amended to address storage and the separation from schools, and to define the volume of product stored. This change was previously adopted and included in Ordinance 1137.
3801.4	Climatic, Geological, Topographical	Inside storage or use of LP-gas creates problems that can compromise workplace safety and potentially cause or add to the danger of fire department personnel fighting fires. LP-gas cylinders have been struck, fallen over and been damaged, leaked and rocketed around, and exploded when exposed to heat and fire.
3803.2.2.1	Climatic, Geological, Topographical	Inside storage or use of LP-gas creates problems that can compromise workplace safety and potentially cause or add to the danger of fire department personnel fighting fires. LP-gas cylinders have been struck, fallen over and been damaged, leaked and rocketed around, and exploded when exposed to heat and fire.
3804.1	Climatic, Geological, Topographical	This code was amended to address storage and the separation from schools, and to define the volume of product stored. This change was previously adopted and included in Ordinance 1137.
3804.3.2	Climatic, Geological, Topographical	Improperly positioned containers of pressurized flammable gas pose a significant fire and safety hazard to facilities, employees, and emergency responders.
Appendix C	Administrative	Appendix C of the California Fire Code provides requirements for the locations and distribution of fire hydrants. The City of Vernon currently establishes standards for Fire Hydrant Location and Distribution. The requirements within the Fire Code would conflict with the City's requirements; therefore it is recommended that Appendix C of the

Fire Code Section	Justification	Rationale
		California Fire Code be deleted.
D103.1	Administrative	Appendix D of the California Fire Code provides requirements for fire apparatus access roads. Previous City Codes have been amended to establish City regulations for Fire Access Road Turnarounds. The requirements within the Fire Code would conflict with the City's requirements; therefore it is recommended that Section D103.1 of Appendix D of the California Fire Code be amended to be in accordance with the City of Vernon standard. This change was previously adopted and included in Ordinance 1137.
K101.1	Administrative	
K101.2	Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a building during a fire. In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building. In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs
K101.3	Administrative	

Fire Code Section	Justification	Rationale
		with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction.
K102.1	Administrative	These definitions were not included in section 2 of the CFC but are included in Appendix K for reference in the adoptions.
K103.1	Administrative, Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a building during a fire. In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to
K103.2	Climatic, Geological, Topographical	
K103.2.1	Climatic, Geological, Topographical	
K103.2.1.1	Climatic, Geological, Topographical	
K103.2.1.2	Climatic, Geological, Topographical	
K103.2.1.3	Climatic, Geological,	

Fire Code Section	**Justification**	**Rationale**
	Topographical	extend the time a person could survive within a burning building. In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction.
K103.2.2	Climatic, Geological, Topographical	
K103.2.2.1	Climatic, Geological, Topographical	
K103.2.3	Climatic, Geological, Topographical	
K103.2.4	Climatic, Geological, Topographical	
K103.3	Climatic, Geological, Topographical	
K103.4	Climatic, Geological, Topographical	
K103.4.1	Climatic, Geological, Topographical	
K103.4.2	Climatic, Geological, Topographical	
K103.4.2.1	Climatic, Geological, Topographical	
K103.4.2.2	Climatic, Geological, Topographical	
K103.4.2.3	Climatic, Geological, Topographical	

Fire Code Section	**Justification**	**Rationale**
K103.4.2.4	Climatic, Geological, Topographical	
K103.4.3	Climatic, Geological, Topographical	
K103.4.3.1	Climatic, Geological, Topographical	
K103.4.3.2	Climatic, Geological, Topographical	
K103.4.3.2.1	Climatic, Geological, Topographical	
K103.4.3.2.2	Climatic, Geological, Topographical	
K103.4.3.2.3	Climatic, Geological, Topographical	
K103.4.3.2.4	Climatic, Geological, Topographical	
K103.4.3.2.5	Climatic, Geological, Topographical	
K103.4.3.2.6	Climatic, Geological, Topographical	
K103.5	Climatic, Geological, Topographical	
K103.5.1	Climatic, Geological,	

Fire Code Section	Justification	Rationale
	Topographical	
K103.5.2	Climatic, Geological, Topographical	
K103.5.3	Climatic, Geological, Topographical	

SECTION 3: The City Clerk of the City of Vernon shall certify to the passage, approval and adoption of this Resolution, and the City Clerk of the City of Vernon shall cause this Resolution and the City Clerk's certification to be entered in the File of Resolutions of the Council of this City.

SECTION 4: This Resolution shall take effect upon the effective date of Ordinance No. 1177.

APPROVED AND ADOPTED this 6th day of December, 2010.

Name: Hilario Gonzales

Title: Mayor / ~~Mayor Pro-Tem~~

ATTEST:

Willard G. Yamaguchi, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, Willard G. Yamaguchi, City Clerk of the City of Vernon, do hereby certify that the foregoing Resolution, being Resolution No. 2010-176, was duly passed, approved and adopted by the City Council of the City of Vernon at a special meeting of the City Council duly held on Monday, December 6, 2010, and thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 10 day of December, 2010, at Vernon, California.

Willard G. Yamaguchi, City Clerk

(SEAL)

STAFF REPORT

FIRE DEPARTMENT

DATE:	**November 1, 2010**
TO:	**Honorable Mayor and City Council**
FROM:	**Jed Hulsey, Fire Marshal**
RE:	**FIRE CODE ADOPTION**

The State of California recently adopted the 2010 California Fire Code (CFC). Section 17958 of the California Health and Safety Code requires that the latest edition of the California Building Standards Codes apply to local construction 180 days after they become effective at the State level. Therefore, this code is scheduled to become effective on January 1, 2011. California Health and Safety Code Sections 17958, 17958.5, 17958.7 and 18941.5 allow a local agency to modify or change the Building Standards Codes provided that such modifications or changes are reasonably necessary because of local climatic, geological, or topographical conditions.

Fire Department staff believes it is in the interest of public health, safety and welfare that certain amendments to the CFC be adopted because of the climatic, geological and topographical conditions in the City of Vernon. Specifically:

1. On the basis of a local climatic condition; the seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City of Vernon. The hot, dry weather in combination with Santa Ana winds results in extreme fire conditions for the community. The aforementioned conditions combined with the geological characteristics of the county and near the City create hazardous conditions for which departure from the California Building Standards Code is required.

2. On the basis of local geological condition; the City of Vernon is subject to earthquake hazards caused by its location in an active seismic activity area. Faults which

potentially cause seismic activity in the City include the Whittier Fault to the east, the Raymond Fault to the north, and the Newport-Inglewood Fault to the west. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. Thus, because the City is within seismic area which includes earthquake faults within the County of Los Angeles and near the City, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

3. On the basis of local topographical condition; the of the City of Vernon is coupled with the density of buildings, limited setbacks, narrow access to buildings, narrow streets potentially create a problem for governmental agencies to respond to emergency conditions. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The heavy rains tend to over-saturate the soil for a short time period during the year, having a detrimental effect on in-ground structures affected by varying moisture conditions.

2010 Vernon Fire Code

The California Fire Code regulates minimum fire safety requirements for new and existing buildings, facilities, storage and processes. The Fire Code addresses fire prevention, fire protection, life safety, and safe storage and use of hazardous materials in new and existing buildings, facilities, storage and processes. It is recommended that the 2010 California Fire Code, including the appendices and standards contained therein, published by the International Code Council and the California Building Standards Commission and attached as **Exhibit "A,"** be adopted as the Fire Code of the City of Vernon with the proposed amendments outlined herein. The proposed amendments for the Fire Code are summarized as follows:

1. General authority and responsibilities
2. Permits
3. Fee schedule
4. Responsibility
5. Definitions
6. Outside storage
7. Vehicle impact protection

8. Fire apparatus access roads
9. Fire protection water supplies
10. Fire protection systems
11. Spray finishing
12. Explosives
13. Storage (flammable and combustible liquids)
14. Liquefied petroleum (LP) gas
15. Roof solar photovoltaic systems

Amendments

Every three years, the State of California adopts new model codes to establish uniform standards for the construction and maintenance of buildings, plumbing systems, mechanical systems, electrical systems, and fire and life safety systems. Local jurisdictions are mandated to adopt such state codes. Prior to adoption, amendments to the state codes may be incorporated by the local jurisdiction if they can be justified on the basis of local climatic, geological, and/or topographical condition which affects the jurisdiction. Attached herewith, as **Attachment #1** are the proposed amendments to 2010 California Fire Code (Part 9 of Title 24 of the California Code of Regulations) that, with approval, will be adopted as the City of Vernon Fire Code. Attached herewith, as **Attachment #2,** are justifications of proposed amendments of the Code, and rationale explaining the reasoning of the modification.

Fee Schedule

Vernon Fire Department currently provides non-emergency safety and fire prevention associated services at no charge to the businesses and occupants within the City of Vernon. Fire Staff has reviewed costs for fire prevention associated services and has determined that without a structured fee schedule, these services cannot be properly supported due to lack of funding to sustain staffing costs performing these duties. Some of the fees being considered currently exist within other City department fee schedules. Having a fee schedule assigned to the Fire Department will assist in supporting the performance of plan review, construction and operational permit inspections, occupancy inspections, public education programs, and other associated safety and fire prevention activities.

Some examples of services currently being provided are:

Inspection	Current Fee	Proposed Fee
Inspection outside of normal business hours	none	$ /hr
Initial inspection (fee waived if in compliance)	none	$ /hr
Re-inspection fee (after 2nd re-inspection)	none	$ /hr

Public Education Training	Current Fee	Proposed Fee
Portable Fire Extinguisher (2hrs.) - 16 students p/ group	none	$ per group
Safety & Emergency Preparation (2hrs.)	none	$ per group
Evacuation Exercise (1hr.) w/ fire apparatus & crew	none	$ per event

A draft of the Fire Department fee schedule is affixed as **Attachment #3** of this report.

ATTACHMENT #1

Amendments to
Part 9 of Title 24 of the California Code of Regulations
2010 California Fire Code

SUMMARY OF RECOMMENDED AMENDMENTS TO PART 9 OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS – 2010 CALIFORNIA FIRE CODE

(a) Section 104.7.2 of the 2010 Edition of the California Fire Code is hereby amended to add the following sentence to the end of the paragraph to read as follows:

104.7.2 Technical assistance.

When there is a fire, explosion, hazardous materials incident, or other potential life or serious property threatening situation, the fire code official can request the owner, occupant, or operator to hire a private fire protection or hazardous materials investigator, acceptable to the fire code official and at the expense of the owner or operator, to provide a full report of the incident, including, without limitation, such matters as origin, cause, circumstances or proposed solutions to the problem.

Rationale: *This amendment provides investigation assistance when the fire code official requires reinforcement and validation of origin, cause, and circumstances of an emergency event or explanations to the threat or risk of an identified problem.*
Justification: *Administrative – (see justification A listed in Attachment #2)*

(b) Section 104.12 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.12 False alarms. The fire code official is authorized to assess a service charge, as set forth by resolution, against the person owning or responsible for an alarm system when a fire department response occurs as a result of the third false alarm at the same address or location within any twelve month period, and for each subsequent false alarm thereafter, or against any person who intentionally, or in violation of the law reports, or causes to be reported, a false alarm to any department of the City of Vernon that an emergency exists requiring immediate or emergency response by the City of Vernon Fire Department.

Rationale: *Fire apparatus and personnel respond to numerous false alarm responses due to owner/occupants not maintaining their fire alarm and/or fire protection systems. The time taken*

to respond to these non-emergency incidents can limit the ability of emergency responders to be available for response to legitimate emergencies and calls for assistance. The City should have the ability to collect for this additional work with the rationale that the owner or responsible party will maintain their fire alarm and/or fire protection systems if a penalty is incurred for the false alarm.

Justification: *Administrative – (see justification A listed in Attachment 2)*

(c) Section 104.13 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.13 Vehicle/trailer creating hazard. Whenever it is determined by a fire code official or his representative that an unattended or attended vehicle/trailer parked or stopped upon any public street, road, alley, right-of-way, or upon private property, creates an immediate danger or fire hazard to itself, other vehicles, persons, or surrounding property, the fire official shall request the local law enforcement agency to cause the removal of the vehicle/trailer to a safe location, and the local law enforcement agency shall cause the removal at the expense of the registered owner of the vehicle/trailer, and a notice of the removal shall be given to the registered owner as soon as feasible.

Rationale: *At times, vehicles are left positioned on thoroughfare locations that restrict and block access to emergency vehicles. This act can impede the ability of emergency responders to arrive, investigate, and function at the scene of the incident on a timely basis, potentially causing more harm, damage, and property loss. Operators have the responsibility to position their vehicles in locations that will not hamper emergency responders from doing they're job.*

Justification: *Administrative, Climatic, Geologic, & Topographic – (see justification A, B, C & D listed in Attachment 2)*

(d) Section 104.14 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.14 Outside obstructions. No person shall park or place any material or vehicle in any established exit way, driveway, gateway, or alleyway between buildings that would hamper the ingress of fire equipment in case of a fire, explosion, hazardous materials incident, or other

potential life or serious property threatening situation. When in the opinion of the fire code official or his representative, any driveway, gateway, or alleyway between buildings is so obstructed by objects, materials, or vehicles as to impede the ingress or egress of said way, it shall be removed immediately upon order of the fire code official or his representative. When such obstruction is a vehicle, it may be removed or impounded at the owner's expense and as prescribed by law.

Rationale: *At times, stock, product, materials, and vehicles are left at sites that restrict and block access to emergency vehicles or obstruct ingress/egress to emergency personnel. This act can impede the ability of emergency responders to safety and quickly function at the scene of the incident, potentially causing more harm, damage, and property loss. Owners, occupants, and operators have the responsibility to position their product, materials, and vehicles in locations that will not hamper emergency responders from doing they're job.*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(e) Section 104.15 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

104.15 Fire safety officer. When in the opinion of the fire chief, it is necessary for the preservation of life and property, due to the hazardous nature of an event, production, operation, or function, the fire chief shall require the owner, agent, production company, or lessee to employ or cause the employment of one or more fire department safety officers to be on duty at such place during such activity.

Rationale: *Occasionally scheduled activities endorsed by property owners, their agents, and production companies occur at locations and facilities in the City that require guidance and service in the preservation of life and property. Approving fire safety personnel, trained to recognize and eliminate unsafe acts, prevent fires, and other hazardous actions will save life and property in the City.*
Justification: *Administrative – (see justification A listed in Attachment 2)*

(f) Section 105.1.4 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.1.4 Investigation fees; work without a permit. Whenever any work, operation or action for which a permit is required by this code has been commenced without first obtaining said permit, an investigation shall be made before a permit may be issued for such work. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then subsequently issued. The investigation fee shall be double the amount of the permit fee set forth in the fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code, nor from any penalty prescribed by law.

Rationale: *The City Council shall set forth the permit and plan review fees by resolution in order to ensure sufficient funds are collected for services provided. From time to time occupants construct and/or modify the structure, building, facility or operation without providing plans or obtaining a permit for the changes. The City should have the ability to collect for this investigational work.*
Justification: *Administrative – (see justification A listed in Attachment 2)*

(g) Section 105.1.1 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.1.1 Permits required. Permits required by this code shall be obtained from the fire code official. Issued permits shall be conspicuously displayed on the premises designated therein at all times and shall be readily available for inspection by code officials. Permit fees shall be as set forth in a fee schedule adopted by resolution by the City Council.
Rationale: *Certain activities historically have been hazardous at work locations. Operational permits annually regulate these activities to reduce or eliminate the risks, whereas construction permits direct the building or installation of specific operational systems or functions. Permits must be posted conspicuously, either permanently or for a limited time, for view by inspectors.*
Justification: *Administrative – (see justification A listed in Attachment 2)*

(h) Section 105.6.25 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

105.6.25 Lumber yards, woodworking plants, and pallet storage. A permit is required for storage or processing of lumber exceeding 100,000 board feet ($8{,}333ft^3$) ($236m^3$), or outside pallet storage in excess of 240 units and inside storage in excess of 64 units.

Rationale: *Large amounts of loose wood products are a fire hazard. Currently, this permit does not incorporate pallet storage. This addition will standardize storage practices at facilities that store substantial amounts of pallets in the City.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(i) Section 105.6.48 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.6.48 General use permit. In addition to the permits required by Section 105.6, a general use permit shall be obtained from the fire code official for any activity or operation not specifically addressed in this article, which in the judgment of the fire code official, is possible or likely to produce conditions hazardous to life or property.

Rationale: *Currently, some activities or operations occur at locations that increase the potential for loss of life or property. This permit addresses these activities and operations by regulating safer practices at facilities in the City.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(j) Chapter 1, Section 105.7.15 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.7.15 High-piled storage. A construction permit is required for installation or modification of high-piled combustible storage in racks. When using any building or portion thereof exceeding

twenty-five hundred (2,500) square feet for high-piled combustible storage in racks, a floor plan showing the dimensions and location of the rack system shall be submitted with the application for such permits.

Rationale: *Currently, this permit is not listed in the CFC. The addition of this construction permit will standardize the installation of high-piled combustible storage in racks along with the requirement of providing a floor plan. The addition of this requirement will direct safer storage within buildings and facilities.*

Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

(k) Section 105.7.16 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.7.16 Roof obstructions. A construction permit is required for installation of a roof photovoltaic system when constructed on a building's roof that covers more than 50% or 10,000 square feet of the total surface area whichever is less.

Exceptions:

1. Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.
2. Non-habitable structures including but not limited to shade structures, private carports, solar trellises, etc.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(l) Section 105.8 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

105.8 Responsibility of permittee. Fire permits shall be presumed to incorporate the provision that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all requirements of this code and any other laws or regulations applicable thereto, whether specified or not. No approval shall relieve or

exonerate any person from the responsibility of complying with the provisions and intent of this code.

Rationale: *The permittee and/or its agents shall be held responsible to ensure its work complies with the code and with other regulations or laws adopted by the State and this responsibility should not be shifted in any way to the City or its employees.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

(m) Section 108.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

108.1 Board of appeals established. The city council shall act as a board of appeals in making a correct determination of any appeal arising from actions of the fire code official. The fire code official shall be an ex officio member of said board but shall not vote on any matter before the board. Appeals shall be made in writing and the appellant may appear in person before the city council or be represented by an attorney and may introduce evidence to support his claim. Appeals shall be heard at reasonable times at the convenience of the city council but not later than thirty days after the receipt thereof.

Rationale: *The city council shall act as a board of appeals making a correct determination of any appeal of orders, decisions or determinations made by the fire code official relative to the application and interpretation of the California Fire Code. The fire code official shall be an ex officio member of said board to assist in the interpretation of the code, but shall have not vote on any matter before the board.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

(n) Section 113.6 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.6 Fees for services, establishment; review. The fire code official is authorized to collect fees for services established or modified by resolution of the City Council. The fire code official shall review fees charged for such services at least annually and shall, with approval of the City

Administrator, recommend changes to the council when costs for such services make it appropriate.

Rationale: *This amendment provides the Fire Department with administrative provisions for the establishment and review of fees for services.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

(o) Section 113.7 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.7 Operational permit fees. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all operational permits required pursuant to the provisions of this code.

Rationale: *Certain business operations create additional potential hazards at the workplace. These hazards are regulated by the fire code, and may require a specialized inspection. The City Council shall set forth the permit fees by resolution in order to ensure sufficient funds are collected for services provided. The City should have the ability to collect for this additional work.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

(p) Section 113.8 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.8 Construction permit fees. Construction permit fees shall be paid at the time of the permit issuance. In addition to the permit fee, the applicant shall pay a plan check fee. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all construction permits required pursuant to the provisions of this code.

Rationale: *The City Council shall set forth the permit and plan review fees by resolution in order to ensure sufficient funds are collected for services provided. From time to time permittees call for an inspection when the work has not been completed or is not performed in conformance with the plans causing the City to re-inspect the work. The City should have the ability to collect for this additional work.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

(q) Section 113.9 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

113.9 Re-inspection fee. Whenever an inspection is scheduled under Section 105.2.2 and the permittee is not ready for inspection and does not inform the fire code official or his delegate at least 2 hours prior to the scheduled inspection, a re-inspection fee may be assessed.

Rationale: *From time to time permittees call for an inspection when the work has not been completed or is not performed in conformance with the plans causing the City to re-inspect the work. The City should have the ability to collect for this additional work.*
Justification: *Administrative – (see justification A listed in Attachment 2)*

(r) Section 114 is hereby added to Chapter 1 of the 2010 Edition of the California Fire Code to read as follows:

SECTION 114 – RESPONSIBILITY

114.1 Responsibility for costs. Persons who personally or through another willingly, negligently, or in violation of law set a fire, allow a fire to be set, allow a fire kindled or attended by them to escape from their control, allow any hazardous material to escape from their control, neglect to properly comply with any written notice of the fire chief, or willfully or negligently allow the continuation of a violation of this code and amendments thereto are liable for the expenses of fighting the fire, for the expenses of any investigation, or for the expenses incurred during a hazardous materials incident. Such expenses shall be a charge against that person. Such charge shall constitute a debt of such person, and is collectible by the City in the same manner as in the case of an obligation under a contract, expressed or implied and a lien may be attached to the involved property.

114.2 Reporting injuries caused by fires. Any person, firm, corporation, or agency that maintains a hospital, pharmacy, or any other medical or first aid service shall immediately report to the fire chief any person suffering from any fire-related injury. The report shall be made both

by telephone and in writing, and shall include the name and address of the injured person, the person's whereabouts, and the character and extent of the person's injuries.

Rationale: *The owner, occupant and/or its agents shall be held responsible to ensure that safety and preventative measures are provided for employees, visitors, and emergency responders by maintaining fire prevention within its buildings, facilities, storage and processes. If the owner or occupant does not comply with the established codes and regulations, fees and/or penalties can be imposed. The City should have the ability to recover the costs of these expenses from the violator(s).*

Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

(s) The definitions of "awning," "false alarm," "fire chief," "fire code official," "fire safety officer," and "safety container" are hereby added to Section 202 of Chapter 2 of the 2010 Edition of the California Fire Code in alphabetical order to read as follows:

AWNING. An architectural projection that provides weather protection, identity, or decoration and is wholly supported by the building to which it is attached. An *awning* is compromised of a lightweight frame structure over which a covering is attached.

FALSE ALARM. The willful and knowing initiation or transmission of a signal, message or other notification of an event of fire when no such danger exists, or the activation of any fire alarm system due to malfunction, mechanical or electrical defect, improper operation or procedure by any person, or a false oral or written report to any department of the City of Vernon that an emergency exists requiring immediate or emergency response by the Vernon Fire Department.

FIRE CHIEF. The chief officer of the fire department serving the jurisdiction.

FIRE CODE OFFICIAL. The fire chief or other member of the fire service appointed by the fire chief charged with the administration and enforcement of this code.

FIRE SAFETY OFFICER. A sworn member of the fire department serving the jurisdiction assigned to preserve life and property at a location, due to the hazardous nature of the activity of an event, production, operation, or function.

SAFETY CONTAINER. An approved container of not over 5 gallons capacity, having a self-closing lid and spout cover.

Rationale: *Definitions for fire chief and fire code official are imprecise. These modifications are specific to Vernon Fire Department. The definitions for awning, false alarm, fire safety officer and safety container were not included in section 2 of the CFC and are referenced in the adoptions, so by including them, the terms are identified.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

(t) Section 304.1.1.1 of the 2010 Edition of the California Fire Code is hereby added to read as follows:

304.1.1.1 Waste material near photovoltaic array system. Accumulation of waste material shall not be permitted underneath nor within 10 feet from a mounted photovoltaic array system.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

(u) Section 311.2.2 Exceptions 1 and 2, of the 2010 Edition of the California Fire Code are hereby deleted.

Rationale: *Vacant premises that have fire protection systems installed must be required to maintain the systems to function in case of a fire.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(v) Section 312.2 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

312.2 Guard posts. Guard posts shall comply with all of the following requirements:

1. Constructed of steel not less than 8 inches (204mm) in diameter and concrete filled.
2. Spaced no more than 4 feet (1219mm) between posts on center.
3. Set not less than 4 feet (1219mm) deep in a concrete footing of not less than 18 inches (457.2 mm) in diameter.
4. Set with the top of the posts not less than 4 feet (1219mm) above ground.
5. Located not less than 3 feet (914 mm) from the protected object.
6. Posts shall be painted safety yellow

Rationale: *The City of Vernon is an industrial city, with large trucks, tractor-trailers, and heavy equipment moving on public and private roadways and property. Occasionally large vehicles strike protective guard posts bending, breaking and pushing them against fire protection equipment, hazardous materials containers, and other specialized appliances the posts are designed to protect. This code modification increases the requirements of the guard posts, thus providing better protection of the equipment.*

Justification: *Administrative and Topographic (see justification A, and D listed in Attachment 2)*

(w) Section 315.3.3 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.3 Pallet storage height and total accumulation for storage. Pallet storage in the open shall not exceed 15 feet (4,572 mm) in height and a total aggregate content not exceeding 6,750 cubic feet. Aisle separation of 15 feet (4,572 mm) is required before the next pile or stack is created. Storage of pallets in excess of 240 pallets requires a permit per Sec. 105.6.25.

Rationale: *Large amounts of loose wood products are a fire hazard. This addition will standardize storage practices at facilities that store substantial amounts of pallets in the City, and provide the fire department avenues to access the product piles if a fire occurs.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(x) Section 315.3.4 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.4 Pallets. All pallets must be stacked so that there is visibility through the stacks to the adjacent aisles, or so organized to assure that no temporary living facilities or places of refuge are hidden from view. Pallets shall be stacked or piled with due regard to the stability of piles, and in no case higher than 15 feet (4,572 mm).

Rationale: *Significant volume pallet storage increases the potential for loss due to the increased fire load. Keeping pallet stacks organized and orderly will assist in limiting the potential for pallets falling over and restricting fire spread.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(y) Section 315.3.4.1 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.4.1 Clearance around pallets. Aisles between and around open pallet stacks shall be at least 15 feet (4,572 mm) in width and maintained free from accumulated rubbish, equipment, or other articles or materials.

Rationale: *Combustible rubbish tends to accumulate around pallet stacks. These light fuels allow combustion to occur more readily if not cleaned up. Large amounts of pallet materials add to the fire hazard. This addition will standardize storage practices at facilities that stockpile substantial amounts of pallets in the City, and provide the fire department avenues to access the product piles if a fire occurs.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(z) Chapter 3, Section 315.3.4.2 is hereby added to Chapter 3 of the 2010 Edition of the California Fire Code to read as follows:

315.3.4.2 Pallet storage next to structure/awning. When pallets are stored near a structure/awning, the height of the storage shall be restricted to no higher than the structure/awning and cannot exceed the height of the structure/awning, or 15 feet (4,572 mm), whichever is less.

Rationale: *Climatic, geologic, and topographic events or conditions may cause pallets to fall onto a structure/awing potentially causing serious injury or death & extensive property damage.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(aa) Section 503.2.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

503.2.1. Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 27 feet (8,229 mm) and an unobstructed vertical clearance of not less than 15 feet (4,472 mm).

Rationale: *The Fire Department emergency vehicles are very large and difficult to maneuver when restrictions are placed on them during incidents. Additionally, some vehicles have outrigger supports that extend the footprint of the vehicle beyond the prescribed access road dimensions in the current fire code. This code modification increases the requirements of the fire apparatus access roads, thus providing sufficient space for movement and placement of emergency equipment. This change was previously adopted and included in Ordinance 1137.*
Justification: *Administrative and Topographic (see justification A, and D listed in Attachment 2)*

(bb) Section 504.4 is hearby added to Chapter 5 of the 2010 Edition of the California Fire Code read as follows:

504.4. Roof top access and safety. Roof top solar photovoltaic systems shall be in accordance with Appendix K.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

(cc) Section 507.5 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

507.5. Fire hydrant systems. When any portion of the facility or building protected is in excess of 150 feet from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the chief.

Rationale: *The City of Vernon has established standards for the spacing of fire hydrants. This change was previously adopted and included in Ordinance 1137.*

Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

(dd) Section 507.5.5 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

507.5.5. Clear space around hydrants. Clear space of 31 feet (9448.8 mm) in front of, 4 feet (914 mm) in rear of and 10 feet (3048 mm) on both sides shall be maintained around each onsite hydrant.

Rationale: *The City of Vernon has established standards for regulating the clear space around fire hydrants. This spacing standard assists in providing fire department apparatus direct access to fire hydrants. This change was previously adopted and included in Ordinance 1137.*

Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

(ee) Section 901.4 is hereby added to Chapter 9 of the 2010 Edition of the California Fire Code read as follows:

901.4.5 Protection of fire protection systems and equipment. Fire protection systems and equipment subject to possible vehicular damage shall be adequately protected with guard posts in accordance with Section 312 Vehicle Impact Protection, and modifications adopted under this code.

Rationale: *The City of Vernon is an industrial city, with large trucks, tractor-trailers, and heavy equipment moving on public and private roadways and property. Occasionally large vehicles strike protective guard posts bending, breaking and pushing them against fire protection equipment, hazardous materials containers, and other specialized appliances the posts are designed to protect. This code modification increases the requirements of the guard posts, thus providing better protection of the equipment.*

Justification: *Administrative and Topographic (see justification A, and D listed in Attachment 2)*

(ff) Section 1504.2 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

1504.2.Location of spray-finishing operations. All inside or outside spray-finishing operations shall be conducted in an approved spray booth constructed in accordance with Section 1504.
Rationale: *This code was amended to include regulations for spray finishing operations that may occur outside. This change was previously adopted and included in Ordinance 1137.*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(gg) Section 3301.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

3301.1. Prohibited and limited acts. Explosive materials shall not be manufactured, tested or stored within the limits of the City of Vernon.
Rationale: *Allowing explosive materials in or near densely positioned structures along with a sizeable general population creates an untenable potential for the City and its business activities.*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(hh) Section 3404.2.9.6.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

3404.2.9.6.1. Locations where above-ground tanks are prohibited. Storage of Class I and Class II liquids in above ground tanks outside of buildings within the City of Vernon and in areas 1,000 feet (304,800 mm) or more from the outside boundary of a kindergarten through 12th grade public school shall be in approved containers not exceeding 10,000 gallons in size. In areas of a lot or parcel within 1,000 feet (304,800 mm) of the outside boundary of said school, the only Class I or Class II liquids approved for storage in above ground tanks is diesel fuel which shall be in approved containers and shall be limited to either two (2) 1,000 gallon tanks or one (1) 2,000 gallon tank.

Rationale: *This code was amended to address storage and the separation from schools, and to define the volume of product stored. This change was previously adopted and included in Ordinance 1137.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(ii) Section 3801.4 is hereby added to Chapter 38 of the 2010 Edition of the California Fire Code to read as follows:

Sec. 3801.4 Inside storage or use. No LP-gases of any type or mixture shall be permitted in any occupancy either for sale, use or storage without approval of the fire code official.

Rationale: *Inside storage or use of LP-gas creates problems that can compromise workplace safety and potentially cause or add to the danger of fire department personnel fighting fires. LP-gas cylinders have been struck, fallen over and been damaged, leaked and rocketed around, and exploded when exposed to heat and fire.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(jj) Section 3803.2.2 is hereby added to Chapter 38 of the 2010 Edition of the California Fire Code to read as follows:

3803.2.2.1 Portable containers on motorized equipment. The use of portable containers of LP-gas as motorized equipment fuel in occupancies is limited as follows: LP-gas fuel tanks on motorized equipment are limited to two per vehicle with a combined capacity not to exceed 50 pounds. Refilling of tanks shall not be permitted within the occupancy and shall be permitted only in approved locations determined by the fire code official.

Rationale: *Inside storage or use of LP-gas creates problems that can compromise workplace safety and potentially cause or add to the danger of fire department personnel fighting fires. LP-gas cylinders have been struck, fallen over and been damaged, leaked and rocketed around, and exploded when exposed to heat and fire.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(kk) Section 3804.1 of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

3804.1. Storage of liquefied petroleum gases. Storage and transportation of LP-gas and the installation and maintenance of pertinent equipment shall be in accordance with NFPA 58 and shall be subject to the approval of the fire code official. Storage is permitted within the limits of the City of Vernon except within 1,000 feet (304,800 mm) of a kindergarten through 12th grade public school.

Exception: Storage of LP-gas not exceeding 2,000 gallons per parcel in approved containers is permitted in all areas within the limits of the City of Vernon.

Rationale: *This code was amended to address storage and the separation from schools, and to define the volume of product stored. This change was previously adopted and included in Ordinance 1137.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(ll) Chapter 38, Section 3804.3.2 is hereby added to Chapter 38 of the 2010 Edition of the California Fire Code is hereby amended by the addition of Section 3801.4.3.2 to read as follows:

3804.3.2 Tank orientation. Unless special protection is provided and approved by the fire code official, containers of LP-gas shall be oriented so that their longitudinal axes do not point toward other LP-gas containers, vital process equipment, control rooms, loading stations, flammable liquid storage tanks or required fire access roads.

Rationale: *Improperly positioned containers of pressurized flammable gas pose a significant fire and safety hazard to facilities, employees, and emergency responders.*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

(mm) Appendix C, of the 2010 Edition of the California Fire Code is hereby deleted.

Rationale: *Appendix C of the California Fire Code provides requirements for the locations and distribution of fire hydrants. The City of Vernon currently establishes standards for Fire Hydrant Location and Distribution. The requirements within the Fire Code would conflict with the City's requirements, therefore it is recommended that Appendix C of the California Fire Code be deleted.*

Justification: *Administrative (see justification A listed in Attachment 2)*

(nn) Section D103.1 of Appendix D of the 2010 Edition of the California Fire Code is hereby amended to read as follows:

D103.1. Access road. The dimension of the fire access road turnarounds shall be in accordance with City of Vernon standards.

Rationale: *Appendix D of the California Fire Code provides requirements for fire apparatus access roads. Previous City Codes have been amended to establish City regulations for Fire Access Road Turnarounds. The requirements within the Fire Code would conflict with the City's requirements, therefore it is recommended that Appendix D Section D103.1 of the California Fire Code be amended to be in accordance with the City of Vernon standard. This change was previously adopted and included in Ordinance 1137.*

Justification: *Administrative (see justification A listed in Attachment 2)*

(oo) Appendix K is hereby added to the 2010 Edition of the California Fire Code to read as follows:

APPENDIX K

ROOF SOLAR PHOTOVOLTAIC SYSTEMS

SECTION K101

SCOPE

K101.1 Scope. This appendix shall apply to the design, construction, and installation of all solar photovoltaic systems when located on the roof of a building.

Exception:

1. Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.
2. Non-habitable structures include, but are not limited to, shade structures, private carports, solar trellises, etc.

Justification: *Administrative (see justification A listed in Attachment 2)*

K101.2 Permits. The fire code official shall review and approve the installation of roof solar photovoltaic systems on buildings that obstruct more than 50% or 10,000 square feet of the total roof surface area prior to the building code official issuing a permit for the installation for such roof obstructions. See section 105.7 for required construction permits.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K101.3 Required construction document information. All roof top installations submitted for approval shall include the following:

1. Site plan to scale depicting the following:
    a. Dimensions of the building
    b. Location of all structures on site.
    c. Street address of building.
    d. Access from street to building.
    e. Location of roof top solar arrays, gardens, or landscaped areas.
    f. Location of disconnects.
    g. Location of signage.
    h. Location of required access paths.
    i. Northern reference
2. Roof and Elevation plan showing the following:
    a. Array or landscape placement.
    b. Roof ridge lines.
    c. Eave lines.
    d. Equipment on roof.
    e. Vents, skylights, roof hatches, etc.
3. Location and wording of all markings, labels and warning signs.
4. Building photographs that may be useful in the evaluation of the garden, landscaping, or array placement.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Administrative (see justification A listed in Attachment 2)*

SECTION K102

DEFINITIONS

K102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

ACCESS PATHWAY. A required walking pathway that is designed to provide emergency access to firefighters.

ARRAY. An uninterrupted section of solar photovoltaic panels or modules or a group of interconnected sub-arrays.

GRID. The electrical system that is on the service side of the electric meter. Designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

INVERTER. A device used to convert direct current (DC) electricity from the solar system to alternating current (AC) electricity for use in the building's electrical system or the grid.

ROOF ACCESS POINT. An area that does not require ladders to be placed over building openings (i.e., windows, vents, or doors), and that are located at
structurally strong points of building construction and in locations where ladders
will not be obstructed by tree limbs, wires, signs or other overhead obstructions.

SOLAR PHOTOVOLTAIC SYSTEM. A system of component parts that receives sunlight and converts it into electricity.

SUB-ARRAY. Uninterrupted sections of solar photovoltaic panels interconnected into an array.

TRAVEL DISTANCE. The walking distance between two points.

VENTING CUT OUT. Section(s) in an array that are designed to accommodate emergency ventilating procedures.

Rationale: *These definitions were not included in section 2 of the CFC but are included in Appendix K for reference in the adoptions.*

Justification: *Administrative – (see justification A listed in Attachment 2)*

SECTION K103

ROOF SOLAR PHOTOVOLTAIC SYSTEMS

K103.1. Solar photovoltaic systems. The requirements of section K103 applies to all solar photovoltaic systems installed on the roof of buildings regardless of system size or if used for residential and commercial purposes. Roof solar photovoltaic systems shall be designed, constructed and installed in accordance with sections K103.2 through K103.5.3.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Administrative, Climatic, Geologic, & Topographic (see justification A, B, C & D listed in Attachment 2)*

K103.2 Marking. Photovoltaic systems shall be marked. Marking is needed to provide emergency responders with appropriate warning and guidance with respect to isolating the solar electric system. This can facilitate identifying energized electrical lines that connect the solar panels to the inverter, as these should not be cut when venting for smoke removal. Materials used for marking shall be weather resistant. UL 969 shall be used as a standard for weather rating (UL listing of markings is not required).
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.1 Building's electrical system main service disconnect marking. The building's main electrical service disconnect shall be marked.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.1.1 Single and two dwelling unit residential buildings. The marking shall be placed within the main service disconnect.
Exception: If the main service disconnect is operable with the service panel closed, then the marking shall be placed on the outside cover.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.1.2 Commercial and industrial buildings. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the lever is operated.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.1.3 Marking content and format. Marking content and format shall be as follows.

1. Marking content: "CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.2 Photovoltaic circuits marking. Photovoltaic circuit marking is required on all interior and exterior photovoltaic DC circuit conduits, raceways, enclosures, cable assemblies and junction boxes to alert firefighters to avoid cutting them. Marking shall be placed every 10 feet (3048 mm), at turns, and above and/or below penetrations, and at all photovoltaic circuit combiner and junction boxes.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.2.1 Marking content and format. Marking content and format shall be as follows.

1. Marking content: "CAUTION: SOLAR CIRCUIT"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold

7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.3 Inverter marking. No markings are required for the inverter unless the inerter is used also as a required remote electrical disconnect.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.2.4 Remote electrical disconnect marking. Marking shall be located immediately next to the remote electrical disconnect control as follows:

1. Marking content: "CAUTION: SOLAR CIRCUIT DISCONNECT"
2. Red background
3. White lettering
4. Minimum 3/8" letter height
5. All capital letters
6. Arial or similar font, non-bold
7. Reflective weather resistant material suitable for the environment (durable adhesive materials must meet this requirement)

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.3 Remote electrical disconnect. Photovoltaic circuits shall be equipped with a means for remote electrical disconnect located downstream from the photovoltaic array at the point where the photovoltaic circuit first enters the structure, or at another approved location. The manual control to operate the remote electrical disconnect shall be located within five feet of the building's main electrical panel. The remote electrical disconnect shall be listed and meet the requirements of the California Electrical Code.

Exceptions:

1. Photovoltaic circuits contained in rigid or electrical metallic tubing running between the array combiner box and the main electrical panel which are entirely exterior to the building need not be equipped with a means of remote electrical disconnect other than the disconnects intrinsic to the system.
2. Photovoltaic circuits contained in rigid or electrical metallic tubing running between the array combiner box and the main electrical panel that run through the interior of the building when installed a minimum of 18" below the roof assembly when measured parallel to the surface of the roof.
3. The photovoltaic system inverter may be used for remote electrical disconnect when the inverter is located immediately upstream of the roof penetration where the circuit enters the structure.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4 Access pathways and emergency ventilation. Access and spacing requirements shall be provided in order to ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut out areas, and to provide emergency egress from the roof. For the purpose of access pathways and emergency ventilation, designation of ridge, hip, and valley does not apply to roofs with 2-in-12 or less pitch. All roof dimensions are measured to centerlines.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.1 Alternative materials and methods. Alternative materials and methods per Section 104.9 for access pathways or venting cut outs may be requested for approval by the fire code official due to:
1. Unique site specific limitations
2. Alternative access opportunities (as from adjoining roofs)
3. Ground level access to the roof area in question
4. Other adequate venting cut out opportunities when approved by the fire code official.

5. Adequate venting cut out areas afforded by panel set back from other roof top equipment (for example: shading or structural constraints may leave significant areas open for ventilation near HVAC equipment.)
6. Automatic ventilation device.
7. New technology, methods, or other innovations that ensure adequate fire department access pathways and ventilation opportunities.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.2 Single and two dwelling unit residential buildings access pathways and venting cut outs. Access pathways and venting cut outs for single and two dwelling unit residential buildings shall be provided as per Section K103.4.2.1 through K103.4.2.4.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.2.1 Hip roof layout. Solar modules shall be located in a manner that provides one three (3') foot wide clear access pathway from the eave to the ridge on each roof slope where solar modules are located. The access pathway shall be located at a structurally strong location on the building, such as a bearing wall.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.2.2 Single roof ridge. Solar modules shall be located in a manner that provides two three (3') foot wide access pathways from the eave to the ridge on each roof slope where solar modules are located.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.2.3 Roof hips and valleys. Solar modules shall be located no closer than one and one half (1.5') feet to a hip or a valley if modules are to be placed on both sides of a hip or valley. If the solar modules are to be located on only one side of a hip or valley, that is of equal length then the panels may be placed directly adjacent to the hip or valley.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.2.4 Venting cut out areas. Solar modules shall be located no higher than three (3') feet below the ridge.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3 Commercial and industrial buildings and multi-residential buildings containing three or more dwelling units required access pathways and venting cut outs. Access pathways and venting cut outs for commercial and industrial buildings and multi-residential buildings containing three or more dwelling unit s shall be provided as accordance with Section K103.4.3.1 through K103.4.3.2.6.

Exception: If the fire code official determines that the roof configuration is similar to that found in single and two dwelling unit residential buildings, the design requirements found in Section K103.4.2 may be utilized.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.1 Array dimension. Arrays shall be no greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in distance in either axis.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2 Access pathways: Access pathways shall be established in the design of the photovoltaic system installation. Access pathways shall be provided in accordance with Section K103.4.3.2.1 through K103.4.3.2.5.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2.1 Access pathways perimeter of the roof. There shall be a minimum six (6') foot (1,828 mm) wide clear perimeter around the edges of the roof.
Exception: If either axis of the building is 250 feet 976,200 mm) or less, there shall be a minimum four (4') (1,219 mm) feet wide clear perimeter around the edges of the roof.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2.2 Access pathway location. The center line axis of access pathways shall run on structural members or over the next closest structural member nearest to the center lines of the roof.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2.3 Access pathway center line. The center line axis of access pathways shall be provided in both axis of the roof.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2.4 Access pathway alignment. Access pathways shall be in a straight line and provide not less than four (4') feet (1,219 mm) clear to skylights, ventilation hatches or roof standpipes.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2.5 Access pathway around roof access hatches. Access pathways shall provide not less than four (4') feet (1,219 mm) of clearance around roof access hatch with at least one not less than four feet (4') (1,219 mm) clear pathway to parapet or roof edge.
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.4.3.2.6 Venting cut out areas. Venting cut outs between array sections shall be either:

1. An access pathway eight (8') feet (2,438 mm) or greater in width.
2. An access pathway that is four (4') feet (1,219 mm) or greater in width and bordering on existing roof skylights or ventilation hatches.
3. An access pathway that is four (4') feet (1,219 mm) or greater in width and bordering four (4') feet (1,219 mm) by eight (8') feet (2,438 mm) venting cut outs every twenty (20') feet (6,096 mm) on alternating sides of the access pathway.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.5 Location of conductors. Conduit, wiring systems and wiring raceways for photovoltaic circuits shall be provided in accordance with Section K103.5.1 through K103.5.3.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.5.1 Conductor location. Conduit, wiring systems, and wiring raceways shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize venting cut out areas.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

K103.5.2 Conductors between sub arrays and DC combiner boxes. Conduit runs between sub arrays and to DC combiner boxes shall use the design that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes are to be located such that conduit runs are minimized in the pathways between arrays.

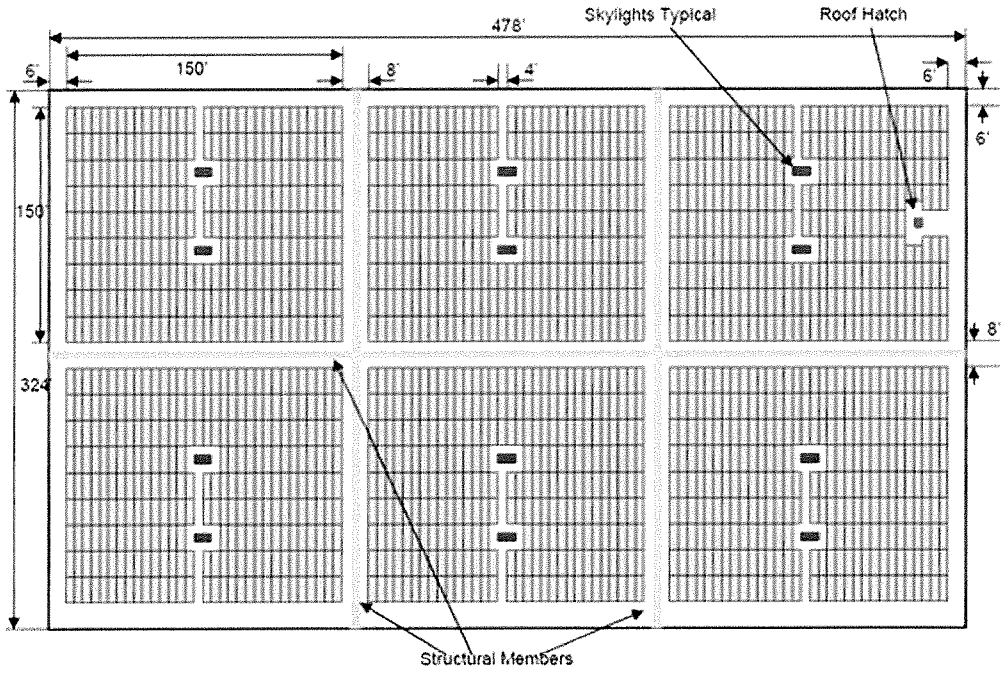
Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*

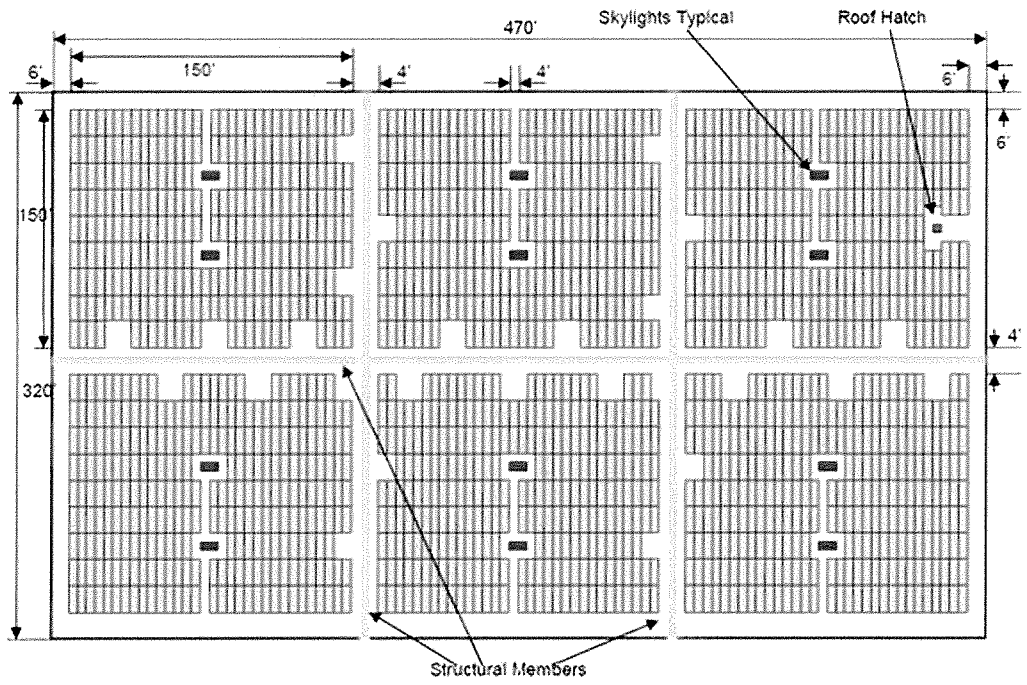
K103.5.3 Conduit within enclosed spaces. To limit the hazard of cutting live conduit in venting operations, DC wiring shall be run in metallic conduit or raceways when located within enclosed spaces in a building and shall be run, to the maximum extent possible, along the bottom of load-bearing members.

Rationale: *Description is very detailed; see Attachment 2 "Rationale-Roof Obstructions"*

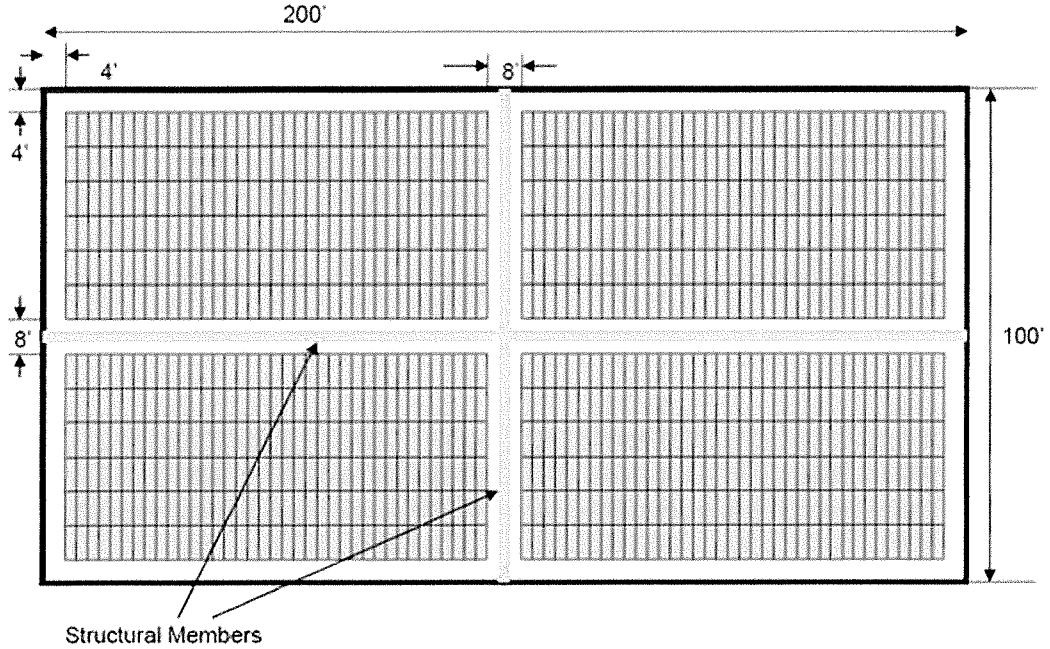
Justification: *Climatic, Geologic, & Topographic (see justification B, C & D listed in Attachment 2)*



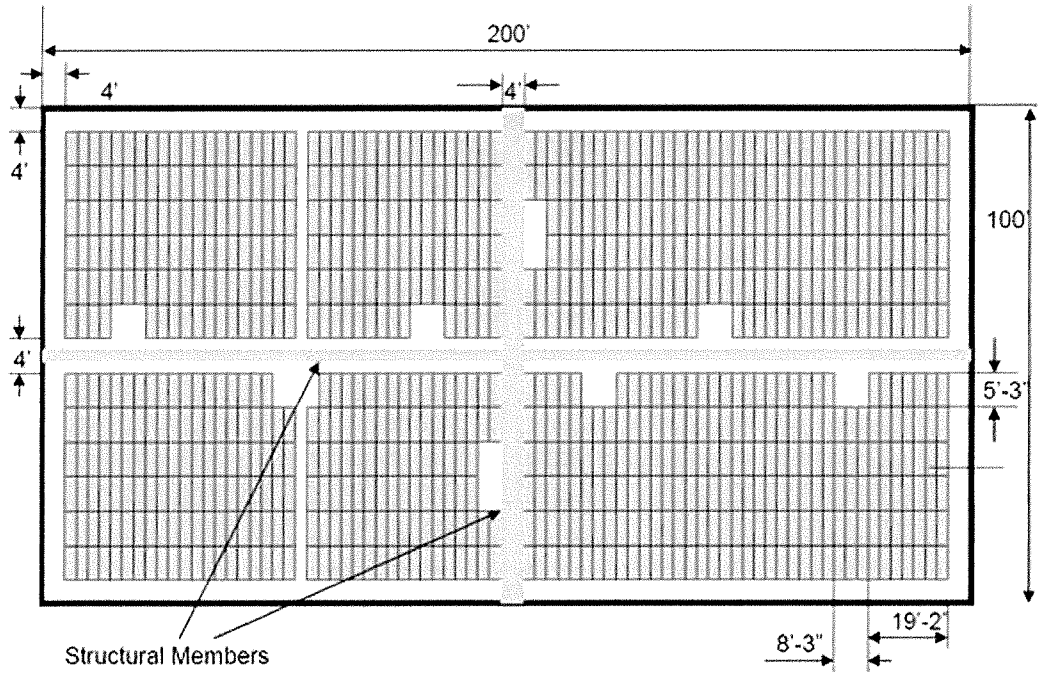
EXAMPLE - SOLAR ARRAY FOR A LARGE COMMERICAL OR INDUSTRIAL BUILDING. EIGHT (8') FOOT ACCESS PATHWAYS. Figure K-03



EXAMPLE - SOLAR ARRAY FOR A SMALL COMMERICAL OR INDUSTRIAL BUILDING. FOUR (4') FOOT ACCESS PATHWAYS. FOUR (4') X EIGHT (8') FOOT VENTING CUT OUTS EVERY TWENTY (20') FEET ALONG THE ACCESS PATHWAY. Figure K-04



EXAMPLE - SOLAR ARRAY FOR A SMALL COMMERICAL OR INDUSTRIAL BUILDING. EIGHT (8') FOOT ACCESS PATHWAYS. THE BUILDING AXIS IS LESS THAN TWO HUNDRED AND FIFTY FEET (250'). Figure K-05



EXAMPLE - SOLAR ARRAY OR FOR A SMALL COMMERICAL OR INDUSTRIAL BUILDING. EIGHT (8') ACCESS PATHWAYS. FOUR FOOT (4') X EIGHT (8') FOOT VENTING CUT OUTS EVERY TWENTY(20') FEET ALONG THE ACCESS PATHWAY. THE BUILDING AXIS IS LESS THAN TWO HUNDRED AND FIFTY FEET (250'). Figure K-06

ATTACHMENT #2

Justifications for Amendments to
Part 9 of Title 24 of the California Code of Regulations

Key to Justifications for Amendments to Part 9 of Title 24 of the California Code of Regulations

A *This amendment is necessary for administrative clarification and does not modify a Building Standard* pursuant to Sections 17958, 17958.5, and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards throughout the City of Vernon.

B *This amendment is justified on the basis of a local climatic condition.* The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City of Vernon. The hot, dry weather in combination with Santa Ana winds results in extreme fire conditions for the community. The aforementioned conditions combined with the geological characteristics of the county and near the City create hazardous conditions for which departure from the California Building Standards Code is required.

C *This amendment is justified on the basis of local geological condition.* The City of Vernon is subject to earthquake hazards caused by its location in an active seismic activity area. Faults which potentially cause seismic activity in the City include the Whittier Fault to the east, the Raymond Fault to the north, and the Newport-Inglewood Fault to the west. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. Thus, because the City is within seismic area which includes earthquake faults within the County of Los Angeles and near the City, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

D *This amendment is justified on the basis of local topographical condition.* The of the City of Vernon is coupled with the density of buildings, limited setbacks, narrow access to buildings, narrow streets potentially create a problem for governmental agencies to respond to emergency conditions. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The heavy rains tend to over-saturate the soil for a short time period during the year, having a detrimental effect on in-ground structures affected by varying moisture conditions.

Rationale for
Roof Obstructions Associated with
Roof Solar Photovoltaic Systems

Unregulated installations of solar photovoltaic systems located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a building during a fire.

In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building.

In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction.

ATTACHMENT #3

Vernon Fire Department

Fee Schedule

OPERATIONAL PERMIT FEES – *ANNUAL INSPECTION REQUIRED*

DESCRIPTION	FEE(based on $p/hr)
Amusement Buildings	$
Carnivals and Fairs	$ per event
Cellulose Nitrate Film	$
Combustible Dust-Producing Operations	$
Combustible Fiber Storage (>100 cu. ft.)	$
Cutting and Welding	$
Dry Cleaning Plants	$
Exhibits & Trade Shows	$ per event
Fire Hydrants and Valves	$
Floor Finishing	$
Fumigation & Thermal Insecticidal Fogging	$
General Use	$
High-Piled Storage	$
Hot Work Operations	$
Industrial Ovens	$
Lumber Yards, Woodworking Plants, and Pallet Storage	$
Liquid-or-Gas Fueled Vehicles or Equipment in Assembly Buildings	$
Magnesium (workings only; *no fee for storage*)	$
Misc. Combustible Material Storage (≤12' high/min. 2500 cu. ft.)	$
Open Burning	$
Open Flame & Torches	$
Open Flame & Candles	$
Private Hydrants (annual test per 5 hydrants)	$
Pyrotechnic Special Effects Material	$
Pyroxylin Plastics	$
Spraying or Dipping	$
Storage of Scrap Tires & Tire Byproducts	$
Temporary Membrane Structures & Tents (less than one week)	$ per event
Temporary Membrane Structures & Tents	$
Tire-Rebuilding Plants	$
Waste Handling	$
Wood Products	$
Late Fee (penalty based on each 30-day delay)	%

Failure to Obtain a Permit	double permit
Investigation – Work w/out Permit	double permit

EFFECTIVE DATE: January 1, 2011
RESOLUTION NO. ****
1 of 2

INSPECTION AND OTHER FEES

DESCRIPTION	**FEES**
Annual occupancy inspection	no charge
Inspection outside of normal business hours (minimum charge – four hours)	$/hr.
Reinspection fee	$/hr.
Self-inspection occupancy (failure to return completed form)	$/hr.
Additional structural plan review required by changes, additions or revisions to plans	$/hr.
Additional plan review, non-structural, required by changes, additions, or revisions	$/hr.
Fire code variance	$
Administrative charge (i.e. weed abatement per parcel)	$
False alarm response 1st/2nd (12 month period)	no charge
False alarm response 3rd or more (12 month period)	$ each
Fire watch/standby conditions – apparatus w/ crew (each hr.)	$
Hazardous materials emergency response - per H& S Code Sec. 13009.6	actual response cost

Community Training Program

CPR/AED (4 hrs.)-limit 8 students per trainer	$ per student
Portable fire extinguisher (2 hrs.) – lecture & extinguisher use - *company provides fire extinguishers* - *16 students per session*	$ per group
Safety & emergency preparation (2 hrs.) –20 students p/ group	$ per group
Evacuation exercise & critique (1/2 hr.)- fire apparatus w/ crew	$ per event

Exhibit "A"

2010 California Fire Code

Excerpts from Chapter 1 Part 2

Administrative Provisions